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ABSTRACT

As part of a long-term study of the utilization of Alaska Native manpower, new data is combined with that of a similar 1975 study to estimate the Alaska Native and non-Native civilian population and work force for 1978 and 1980. Contrary to 1975 predictions the population ratio of Alaska non-Natives to Natives remains constant at 82%/18%. The estimated 1978 Alaska Native population is 68,931, of which 42% is under 16. The Alaska Native Work Force (28% of the Native population) is increasing annually by 1.5%. There are growing numbers of Native women workers. Approximately 7% to 10% of the Native Work Force is concentrated temporarily in urban and rural population centers and is available to respond to recruitment efforts for statewide short-term employment through 1980. Data suggests that without the start of full scale field construction on the trans-Alaska gas line before 1980, the Native Work Force cannot possibly exceed 13% of the Statewide Work Force in the forseeable future. It is important to focus on how many Alaska Natives can realistically be included in the Statewide Work Force and to realize that Native manpower utilization differs from that of the dominant society. Recommendations of the 1975 study are repeated. (SB)

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Alaska Native Population and Manpower

PERSPECTIVES ON NATIVE LABOR FORCE UTILIZATION: 1978

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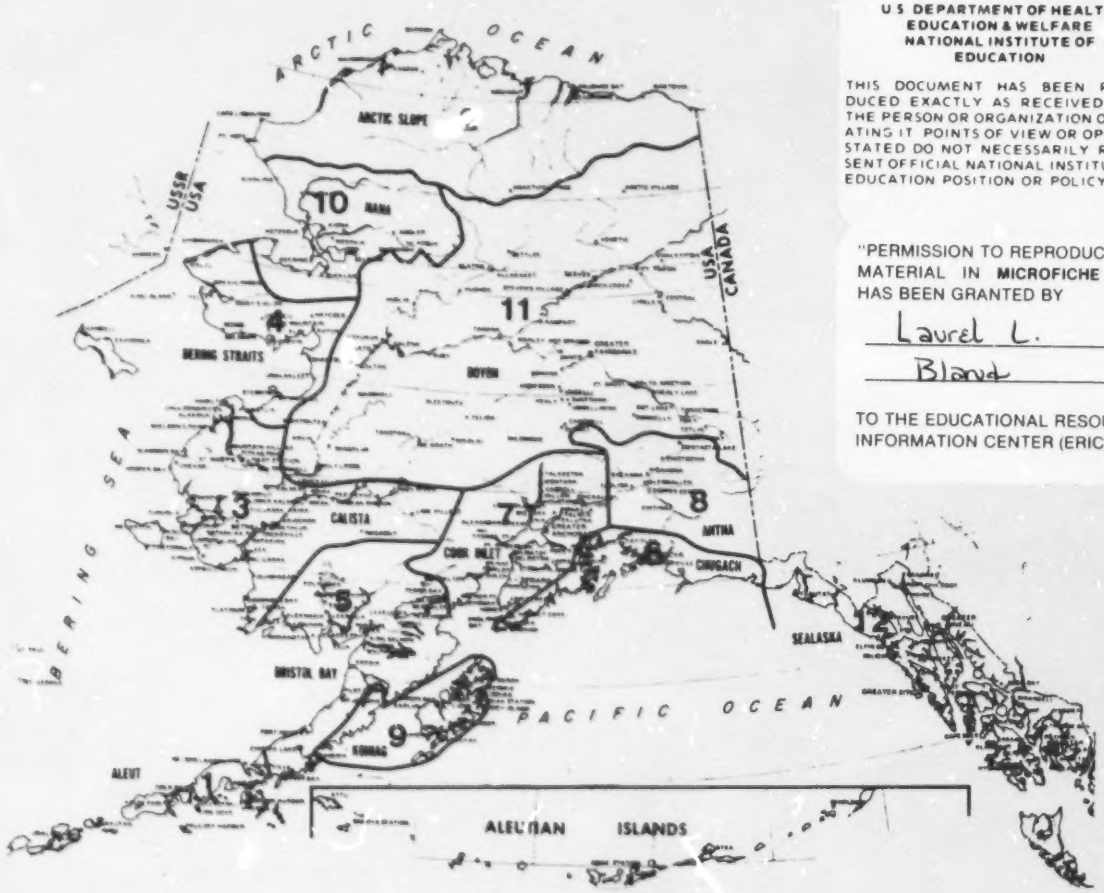

by Laurel L. Bland, Ph.D.

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ALASKA NATIVE POPULATION AND MANPOWER PERSPECTIVES ON NATIVE LABOR FORCE UTILIZATION: 1978

By

Laurel L. Bland, Ph.D.

Published by

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The cost of compiling and producing this limited initial edition of ALASKA NATIVE POPULATION AND MANPOWER : PERSPECTIVES ON NATIVE LABOR FORCE UTILIZATION 1978 was underwritten by Northwest Alaskan Pipeline Company through special arrangement between the author, HERS Inc. and the pipeline company. The study was conducted wholly as independent research and the conclusions drawn or opinions stated are entirely those of the author. We wish to extend our appreciation to Northwest Alaskan Pipeline Company for the opportunity to continue a line of investigation first begun in 1967 in an effort to produce useful, reliable, and practical information regarding human resource and manpower development in Alaska. We particularly wish to express our appreciation to those who assisted with the clerical and technical aspects of finalizing the manuscript, and to liaison representatives of the Northwest Alaskan Pipeline Corporation who generously provided time to aid in the final phase of production, publication and graphic illustration for this report.

Laurel L. Bland, Ph.D.

September 1978

NORTHWEST ALASKAN PIPELINE COMPANY

JOHN G. McMILLIAN
CHAIRMAN
AND
CHIEF EXECUTIVE OFFICER

P. O. BOX 1526
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The Honorable Jay S. Hammond
Governor
State of Alaska
Juneau, Alaska 99811

Dear Governor Hammond:

During the past few years, Northwest Alaskan Pipeline Company has been involved in a number of technological and sociological research projects in Alaska. This research is needed to help us in preparing for construction of the Alaskan Natural Gas Transportation System. Among the areas of particular interest to us is that of human resources and its attendant socioeconomic considerations, focusing on the work force potential of Alaska's Native population.

To help us with this study, we engaged the Alaskan independent research firm of Human Environmental Resource Services, Inc., headed by Laurel L. Bland, Ph.D. Dr. Bland's professional interest and research activities since 1967 have generally focused on Alaska manpower development, with an emphasis on minority manpower concerns. Her published materials include: A compilation of reports for the Alaska Human Rights Commission from 1967 through 1969; a 1970 manpower needs assessment related to construction planning for the Alaska oil line which included recommendations for training Alaskans; and a 1975 study of contemporary Alaska Native population and manpower. Dr. Bland has been nominated for inclusion in the forthcoming Who's Who in the West in recognition of her pioneer contributions to American Indian and Alaska Native human resource development and learning-theory research.

As previously mentioned, our intent in preparing this study was to develop information of significant use to our company in construction planning for the gas line. We think this purpose has been well-served. However, we, like others who have participated in this long-term, independent study of vital concern to Alaska, agree with Dr. Bland that the study deserves a wider audience. The information in the study should be made more widely available while it is still timely and useful to those who need it for valid public purposes.

Therefore, Northwest Alaskan Pipeline Company is pleased to join with Dr. Bland in providing to you and the agencies of state government a copy of the report compiled by Human Environmental Resource Services, Inc. Further, Dr. Bland has our blessing in further distributing the report to other appropriate organizations and educational institutions.

At this time, it should be noted that the reports are not available through any publisher. However, we understand that, as soon as Dr. Bland has made the necessary arrangements, the entire report will be made available nationally through various educational institution library services, including that of the University of Alaska.

Sincerely,

John G. McMillian

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ALASKA NATIVE POPULATION AND MANPOWER PERSPECTIVES ON NATIVE LABOR FORCE UTILIZATION: 1978

A Report

By

Laurel L. Bland, Ph.D.

STAFF AND SUPPORT SERVICES

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1978

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ALASKA NATIVE POPULATION AND MANPOWER PERSPECTIVES ON NATIVE LABOR FORCE UTILIZATION: 1978

ABSTRACT

The above-titled report serves as an update for a similar study executed by the author in 1975. New data and information generated by government agencies in Alaska are combined with data reported or generated in the 1975 study to describe elements of the Alaska civilian and Native population and work force as of 1978 and as projected through 1980. Principal results of this report include evidence that the Alaska non-Native/Native civilian population ratio has remained relatively constant through the 1970's (82% : 18%) despite earlier State and Alaska Native predictions that the disparity would be greater. The Alaska work force and the Native work force have generally expanded proportionately in keeping with civilian/Native population expansion. A significant increase, however, is demonstrated in the rate of entry of Alaska Native women in the work force beginning in 1977. The trans-Alaska oil line construction project experience suggests that approximately 1,500 to 2,000 Alaska Natives (7% - 10% of the Alaska Native work force) are likely to respond continually with interest to major labor-intensive widespread Native employee (or trainee) recruitment for categorical job-term contract employment through 1980. Costs and logistics of rural Village Native employee/trainee recruitment are discussed in context of the Alaska labor market areas. Recent evidence indicates that Alaska Natives interested in employment under job-term contract conditions tend to be temporarily concentrated in the larger urban and rural centers of population where employment facilitator services are located. Limitations and qualifying factors associated with data sources, interpretation, analysis, and application are discussed. Attention is drawn to various unknowns regarding seasonality of Native worker availability, and adaptation of rural traditional lifestyles to opportunities for job-term employment at distant locations.

Attention is drawn to the actual numerical limits naturally imposed on the age 18 through 64 years, or age 16+ Alaska Natives who can be enumerated for potential inclusion in the Alaska work force, or who can be viewed as available for employment in response to intensive statewide employment recruitment. Attention is further directed toward considerations affecting application of affirmative action plan goals

and timetables by Alaska employers in regular and/or a single labor-intensive project recruitment of Alaska Natives whereby undue competition or self-defeating mechanisms can be situationally introduced with a high probability that this will adversely affect expressed long-range interests of the State or Native Regions regarding Native human resource development and work force utilization. Present indications are that the non-Native Alaska population will continue to sustain a high turnover of prime working age individuals with few dependents per household. By contrast, the Alaska Native population can be expected to reflect emphasis on retention of cultural identity and permanence through promulgation of Native Village life applying modern adaptations. These two different perspectives on individual purpose for living in Alaska impose technical problems in developing and keeping current total population/Alaska Native population, population/manpower resource/work force estimates, and ratios for affirmative action information purposes. Opinion expressed is not intended to suggest that the concept of Federal goals and timetables for minorities is open to question, but it is expressed that labor-intensive employers (i.e., heavy construction and government) must include assessment of the actual capacity of the Alaska Native population to meet goals as set by individual employers who must compete for the physically limited number of employable Native workers available for the state work force.

Current data suggest that through 1980, 7% to 10% of the employable Alaska Natives may be viewed as potentially available to respond to statewide labor-intensive short-term employer recruitment. This represents approximately 5% of the estimated age 18 through 64 Native population for 1978 - 1980. On an annual basis, the employable Alaska Native work force (age 16+) holds approximately 28% to 29% of the total Native population, for an actual numerical increase through 1980 estimated to average about 850 individuals per year. Noted is that a reasonably realistic demand/response pattern in Native work force utilization statistics began to emerge in 1975 through reports gathered for EEO reporting purposes associated with the trans-Alaska oil line construction project. Interpretation of these data in combination with Native population data demonstrates that physical limits for estimating the Alaska Native work force through 1980 will describe a proportional annual profile approximating Native population = 100%: Native work force = 28-29%. Comparable data for 1975-1978 reflecting results of widespread emphasis by government, Native organizations, and industry to extend employment/training opportunities to Alaska Natives indicate that when the total Alaska work force was highly inflated during the oil line construction project, Alaska Native workers comprised approximately 9% of the total state work force (employed and unemployed). Considering Alaska's recent economic history, by 1978 a more normal demand on the Alaska

work force prevails than in 1975 through 1977. The remarkable numerical increase in size of the Alaska Native work force since 1970 is therefore described in 1978 at a time when the state work force is believed to be at the lowest point since oil and gas line transmission system construction commenced. The Native work force in 1978 is estimated to comprise a maximum of 13% of the total 1978 Alaska work force. Without start of full-scale field construction on the trans-Alaska gas line before 1980, current data leave little doubt that for the foreseeable future Alaska Native workers cannot possibly exceed 12% to 13% of the total Alaska work force. This proportion can be expected to reflect a ratio in keeping with the rate of numerical growth for both components of the total work force in forthcoming years. According to State forecasts, there is a high probability that the proportional percent of Native workers in the work force will decline rather than remain stable as a component of the total Alaska work force due to increased labor force demands and an expanded total work force predicted for the 1980's.

The estimates given for the Alaska Native work force are quantitative, since data are lacking to suggest firm qualitative descriptive factors regarding occupational skill levels or preferences held by Alaska Native workers. Further research is recommended to learn more about the manpower demanded for subsistence activities, maintenance of Village viability on an annual basis, and the demand placed upon the Alaska Native work force by Native Region internal corporate, local government, human service, and private business affairs.

A singular theme throughout this report is emphasis upon the changing socio-economic conditions imposed upon the Alaska Native population and work force, the relationship this bears to the state's population and economy, and how both are strongly affected by the Alaska Native Claims Settlement Act, Indian Self-Determination and Education Assistance Act, Comprehensive Employment and Training Act, and by equal opportunity laws and regulations.

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CHAPTER I

2

ALASKA NATIVE POPULATION AND MANPOWER PERSPECTIVES ON NATIVE LABOR FORCE UTILIZATION: 1978

I
INTRODUCTION

With varying intensity, scholarly interest and public attention has focused upon the people of Alaska and its natural resources for more than 200 years. Since the late 1950's, Alaska and its population have been subjects for numerous studies intended to draw attention to the Alaska Native sub-population's unique social, economic, and cultural differences when compared to the dominant surrounding society. Few studies, however, attempt to deal with the practical issues and ordinary daily problems associated with forced social change and how responsible individuals and groups (or agencies) go about the business of accomplishing what must (by law), or should (by policy), be done when present and future functional Village community life is at stake. This document, together with a number of other generally related studies and position papers are the result of this author's continuing effort to contribute to the body of information available in decision-making and problem-solving situations involving Alaska human resource development. Every attempt is made to maintain objectivity in reporting and developing the opinions being presented. A long and close association with "urban" and "rural" Alaska Native people may have resulted in favorable personal bias, but the controls exerted by standards of quality research rigorously applied are believed to

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compensate for personal views reflecting a high regard and respect for the Alaska Native people and their basic cultural values.

In less than 100 years, by 1970, the once predominant Alaska Native population is known to have diminished from around 90% Native to approximately 17% of Alaska's total population. Much scholarly research has dealt through categorical topics with the "civilization" of the Alaska Eskimos, Aleuts, and Indians and the changes imposed on traditional life styles through external social pressure or accepted internally by exercising customary methods for making individual and community choices. Recent behavioral science studies appear to focus most heavily upon rapid enforced modernization and social change affecting rural Alaska Native Village populations. These lines of investigation appear to revolve most often around issues broadly labeled "human rights"--ethics, morality, and ultimate outcomes--associated with future viability of Alaska Native Villages, surviving cultural customs, and economic v. human value in interpretations of poverty status. Notable examples of this type of research are Hippler's 1969 monograph on the viability of Native Villages, Jones' 1976 monograph on Urban Native work adaptations, and the Naylor, et al., 1976 demographic survey of four Athabascan Villages near the Alaskan Highway between Fairbanks and Tok (see Bibliography).

In general, contemporary authoritative reports dealing with Alaska Native population sub-components also focus upon socio-economic needs, development of the

Alaska Native associations and corporations, and reflect the impact of Federal legislation such as the Indian Self-Determination Act and the Alaska Native Claims Settlement Act. Government, industry, and Alaska Native leadership alike must deal with the practical realities of law and regulation, modern economics, and the human, social, and civil needs of Native Villages with reasonable and balanced policies regarding utilization of Alaska Native manpower. The circumstance prevails whether individuals are enumerated in the state's work force or included in the periodic BIA reports for the Native "labor force."

Alaska Native population data is collected, compiled and reported by a variety of official or authoritative sources and described in terms befitting purposes for which the data were generated. With few exceptions, however, all reports recognize (or are adjusted to some degree of conformance with) current U.S. Census data. Between the every 10 year census, Alaska Native population data are collected and compiled by different official sources with detail emphasis placed upon those characteristics in which the collecting agency has the most interest. In general terms, this holds equally true for the State in its regular reports for total and resident civilian population and work force estimates. Population data appearing in these pages include major sources listed below, together with any special reports deemed appropriate.

- U.S. Bureau of the Census
- Bureau of Indian Affairs, Juneau Area Office

- Alaska Native Area Health Service, U.S. Public Health Service
- State of Alaska Departments:

  Labor
  Commerce and Economic Development
  Community and Regional Affairs
  Education

- University of Alaska
- Alaska Federation of Natives
- Alaska Borough Offices
- Alaska Native Region Association and Corporation Offices

It should be noted that the most suitable and current authoritative Alaska Native population data appearing here can provide only estimates for describing Alaska population characteristics / Alaska Native labor force (manpower) utilization as shown below:

- Total population
- Persons employed
- Persons unemployed
- Persons unemployed and actively seeking work (Alaska work force members)
- Native persons grouped by age, sex, and self-stated place of residence

Application of these data for purposes of analysis and interpretation depends upon generally recognized socio-economic conditions extant for a comparable time period. The estimates do not provide qualitative data for given occupational categories or levels of education and/or training. Other than federal and state agency special topic

reports, little reliable data detail for the Alaska Native or the resident civilian population and work force after 1970 is available regarding:

- Details listed just previously.
- Persons employed, underemployed, or unemployed as regularly available by occupational or skill category classified by:
    - potential periods for employment or on-the-job training related to age groups;
    - number of persons by sex, age, and race who are eligible for special consideration as veterans; or
    - number of persons who are employable or potentially employable who are physically or functionally (social or education rehabilitation needed) handicapped by commonly accepted definition of the term.

Investigation into topical aspects having a direct affect on, or relationship to, Alaska Native manpower development and utilization immediately encounters technical problems associated with quantity, quality, and timeliness of available data. These problems are compounded by other technicalities that severely restrict the type and extent of quantitative comparative analysis that can be applied when treating data subcomponents of the Alaska work force and its resident population to obtain useful information. Government and Alaska Native organizations--when acting in representative capacities in matters associated with education, training, and employment for local, state, and federal levels--face a number of serious dilemmas. Some of the most notable concerns are:

- Socio-economic viability of small rural communities vs. high unemployment and few regular, permanent cash income-producing jobs.

- Rapid modernization vs. established functional traditional customs and practices associated with community survival.

- Human dignity and self-sufficiency vs. welfare attitudes and unacceptably low standards of living.

- Immediate reduction of Village unemployment through intensive non-local job recruitment for short-term employment vs. risk of severely reducing the potential number of skilled or professionally trained young adults and youth from the present Alaska Native population who are needed in substantial numbers for meeting future Alaska Native work force demands.

Purposeful responsive policy and program planning clearly require that these human and economic factors be given full consideration when the tools of affirmative action planning are being applied in the best interests of resident Alaskan and Alaska Native manpower utilization. Due to present limits in the state of the art for detailed Alaska population and manpower reporting, some over-simplification is necessary to communicate current realities, generally consistent circumstances, and relatively uniform concerns faced by Native Associations* and the State in matters of Alaska Native labor force utilization. Representative official and authoritative data and information believed valid for given reporting dates in the references cited herein appear sufficient to identify two primary issues related to Alaska Native work force utilization:

- Efforts to produce maximum short-term direct employment in labor-intensive major construction projects--or through general recruitment to fill regular employment vacancies temporarily created by exceptional demands on the total resident Alaska work force--may serve to limit or severely retard planned response formulated under any State or Native Region policy intended to progressively upgrade the competencies and occupational skill levels of the Native

*The terms Native Association(s) and Native Region(s) are used interchangeably throughout this report when referring to Native Associations or Native Corporations activities or policies of Native Associations or Native Corporations within the 12 intra-state Native Regions (See Definitions, P. 204).

labor force to a level where its members can compete favorably in the regular labor market.

Strong direct expedient action taken to reduce reported high unemployment in Native Villages, or to recruit Native youth and young adults for short-term, highly paid, but career advancement limiting employment solely for the purpose of filling affirmative action goals may actually serve to inhibit or ultimately reduce the capacity of Alaska Native Regions and the State to identify, prepare, and/or develop the manpower required to conduct local community affairs while concurrently satisfying employment needs to fulfill Native-specific interests and general business or government employee requirements within the various geographic regions of the state.

General Background

Alaska holds a very small population (approximately 409,000 total, with 21,000 being military personnel for an estimated 1978 civilian population of 388,000 including 27,000 military dependents). The 1978 annual average civilian work force is estimated at 172,600 (44.5% of civilian population). The annual average projected unemployment is reported to be 15,700 (9.1%), but this is misleading when converted to monthly averages for a number of well-documented reasons. Forecasting of employment since 1970 reflects a steady overall increase. The state's domestic economy and national economic interest in Alaska's natural resources exert a relatively stronger direct influence on the state's resident population/work force annual characteristics than generally holds true for other states. Some factors affecting description of the Alaska population/work force are seasonal or cyclic labor intensive work force demands, changing levels in the number of military personnel and dependents assigned to Alaska and a stable but growing resident Alaska Native population. It is possible, however, on the basis of combined data as reported regularly from various official sources to

establish reasonable and reliable current and projected estimates for totals and percentages of certain aspects and/or components of the Alaska civilian population and work force.

Alaska's population is heavily concentrated in four urban centers--Anchorage and environs (with nearly half the total population), Fairbanks and environs, Juneau, and Ketchikan, in descending order. These communities are individually geographically isolated with visible disparate social, economic, and population characteristics. In the contiguous states, these communities might normally have evolved as the core communities for three or possibly four states.

Alaska acknowledges the administrative geographic divisions of the 12 incorporated Native Association Regions (13 non-profit corporate units) that frequently function in certain socio-economic situations similar to representative local government or public service agencies.

Federal, state, and Native Region perceptions and expectations have brought about a situation whereby Alaska is presently in the process of re-defining Census District boundaries in order to conform these units to Native Region and sub-Region boundaries as recognized by the Federal Government.

The Federal Government generally accepts only population data developed through federal agencies or federal designates within state governments. Of the latter, past experience shows that in controversy the Federal Government is more likely to fall back on Census data than that which may be generated by the states, their political subdivisions, or federal service agencies. The federal rationale is realistically

determined, since (a) federal appropriations for federal service agencies and federal revenue sharing are frequently determined on a per capita basis, and (b) states and agencies tend to begin local data bases with Census data generated every 10 years, and proceed to extrapolate from that base to some current point in time.

Historically, the Bureau of Indian Affairs Alaska Native population data reports have held a strong position in determining general human service spending policy applied to the state as a whole. The BIA, however, does draw upon Census data to illustrate or derive significant internal changes in enumeration or quantitative/qualitative measures appearing in regular Area service reports. The problem to be encountered in any task associated with using statistical measures to describe characteristics of the Alaska Native population and work force is that a very real misunderstanding can occur when responsible agents confuse totals reported for Alaska Native enumerations dealing with Enrollment data in terms of place of residence, place of origin, age groups, and sex; when what is actually being sought are these and similar characteristics for within-state resident Native adults. The problem is further compounded when Enrollment data is used to draw comparisons or parallels for describing patterns of employment/unemployment/manpower utilization for adults aged 18 through 64 who actually reside in Alaska. Selected Enrollment data are useful for practical application in Native labor force descriptions, but only to a limited degree.

Minority enumerations, other than Natives, constitute an on-going matter of controversy among those who deal with the Alaska population and work force. The state derives reports of annual estimates for the total population, civilian population (including military dependents) and civilian work force. These are normally not available except by broad (and occasionally questionable) details for race, sex, and age. In 1970, only 15 places in Alaska held 2,500 or larger populations, with half being military bases. It is commonly believed that at the time of the 1970 Census, a substantial portion of the Negro population reported was associated with military establishments (dependents or civilian personnel). Since the percentage ratio to total population was so low, and concentrated predominantly in the larger communities, little adverse reaction to the reported proportions was generated until recently when Black or Other Minority interest groups began to cite increased numbers (17).

Virtually all racial data reported for Alaska now shows minorities other than Blacks separated categorically under various federally designated groups. The 1970 Census, however, provides racial reporting only by White, Black, Alaska Natives (Eskimo, Indian, Aleut), and Other Minorities (defined as "Chinese, Japanese, and Phillipinos"). Recently, some locally generated data are available for Hispanic people in Alaska, but it is generally regarded as insufficient and questionable. Currently, Blacks, Phillipinos, and women have special interest group spokesmen drawing attention to these segments of the Alaska population. These groups, in turn, usually include some

consideration for the Alaska resident "other forgotten racial or social minorities," (such as Hispanic) recognized by the government.

Alaska Native Regions have gained sobering practical experience in confronting the complex realities associated with externally and internally imposed mandates by government and their membership. This appears to have generally produced a favorable climate at Region leadership level to foster Native corporate policy and planning aimed at initiating and maintaining a pragmatic approach toward utilization of Alaska Native manpower. This, however, does appear to include immediate concern for the marginally employable as part of long-range planning in the best interests of Alaska Natives by Region and as a special class of the U.S. population.

Unquestionably there are outer physical limits for any given point in time for the actual number of aged 18 through 64 Alaska Natives who can even remotely be considered (a) potential members of the Alaska work force, and (b) workers who are available for employment on a statewide recruitment basis. These limits become significant in application of factors associated with relatively long-term relocation, single short-term job assignments, or serial job term assignments over a substantial period of months to be undertaken some distance from the usual place of residence. Conversely, due to the numerically unpredictable constant factor of in- and out-migration of Alaska civilian population and work force, describing the general Alaska resident work force and population characteristics for affirmative action plans or other purposes cannot

presently draw upon the 1970 Census for many of the baseline numerical detail factors needed. Prior to construction of the Alyeska pipeline, a detailed comprehensive information gathering system related to resident workers (potential and real), was not present in Alaska in a form useful to the large-scale, labor intensive project employers. Presently considerable pertinent worker information is available for authorized use from the Alaska Departments of Labor or Education. This includes an exhaustive list of Alaska Natives by age and occupational category employed on the oil pipeline construction project of 1974 through 1977.

In order to set affirmative action goals, and in some cases possibly to demonstrate capability to meet federal stipulations for equal employment opportunity, a major labor-intensive project employer engaged in heavy construction in Alaska can probably develop a detailed foundation for management policy prior to scheduled commitment negotiations. The foundation must necessarily be composed of data and information that specially qualified legal counsel believes to be defendable in any argument that may arise with federal or state governments. Ordinarily, U.S. Census and U.S. Department of Labor data (together with data from similar state agencies) for a given work site labor market area would suffice to meet most employer needs. What is known to date regarding Alaska population and work force data strongly suggests that statistical tools routinely applied by government to derive EEO or AAP goals and time tables are generally inappropriate for the small numerical units, low population density, limited

centralized labor market areas, seasonal pattern of resident work force utilization, and the particularly significant seasonal demands made upon total Alaska manpower and its Alaska Native component.

Considerations related to rural work force utilization must take into account that the population is categorically almost exclusively Alaska Native, with a few Asian-Pacific minorities residing primarily in the Southeast Alaska Villages. The very limited numers of White or Black male and female adults who reside in rural areas who are included in work force estimates are usually:

- employed and not seeking work (except occasionally seasonally);
- dependents of the above;
- seasonally employed (i.e., teachers, blue collar workers) able to be periodically available for statewide job recruitment;
- adults undergoing education or training with intermittent periods of free time, enabling them to work; and/or
- adults who are currently underemployed and seeking more desirable occupational opportunities, or youth and adults newly entering the job market.

Parallel descriptions for the five broad categories just listed may be drawn for the Native Village "labor force" as reported by the BIA by adding that rural Native labor force members are usually obligated and/or responsible to provide a substantial (frequently a majority) number of yearly work weeks to subsistence harvest labor and preparatory activities.

Social/Cultural Considerations:

Certain sociological tenets applied to the U.S. have withstood the test of time and are generally accepted to be true. These are that in established functional rural communities, short of starvation, individuals will seek and hold distant regular or periodic wage employment if:

- it is economically profitable and personally rewarding or satisfying;
- regular employment is socially approved by peers, relatives, and community; and
- persons with strong community ties do not feel negative social pressures and guilt associated with employment that physically prevents them from contributing needed labor or services related to family survival or community integrity.

In good faith efforts to assess and understand unemployment and poverty status conditions in Alaska Native villages for the purpose of introducing constructive change mechanisms, these sociological considerations should not be ignored.

The history of Alaska Native villages documents a remarkable capacity for communal or Native racial groups to adjust and adapt to natural and social disasters in order to maintain group and cultural identity and survival. Natural disasters that still occur include ravages of major storms, occasional volcanic eruption, earthquake, flood, and fire. Social disasters in the past include sweeping epidemics, particularly the 1917-18 influenza epidemic followed by a tuberculosis epidemic among Alaskan Natives unequaled anywhere else in the world. These forced people to re-group, consolidate,

and, in some areas, reduce the actual number of villages. Further reduction in the number of villages occurred when fisheries, gold, timber, and installation of military bases and national defense warning sites effectively disrupted established land and water use patterns and limited modernization facilitators (including elementary education and other social welfare services that were generally welcomed or demanded by Alaska Natives) were extended by Federal (and later State) Government. Throughout more than a one hundred year period, Alaska Native villages maintained integrity as functional communities by sustaining the one reliable economic constant known since antiquity--reliance on natural harvest as the key for human survival. In rural Native villages this largely remains true today. When the effects of the general Alaska Native population explosion began to surface in the 1960's, in terms of real numbers a substantial out-migration from the rural communities to the centralized service villages and cities in Alaska or other states occurred. The reasons most commonly described for those who did not return to the villages are:

- employment and accommodation to urban life and/or ultimate acculturation; and
- the tolerance limits for Village socio-economic stability in terms of population numbers and age distribution had been reached, thereby forcing surplus population to relocate according to avenues open for self and attendant nuclear family survival (standard references).

On a less theoretical level, Alaska Natives self-identify collectively as "rural" and "urban" Natives, but without intending to convey the meaning that personal roots

or community ties with family Villages have been severed (18). Documents generated by Native representative organizations (like the Alaska Federation of Natives) for the purpose of informing the public and Natives alike, demonstrate a keen perception of the dilemma inposed on Village residents: out-migration and assimilation into the "mainstream" society, or creeping assimilation while consciously channeling Regional resources into the Villages to maintain community survival (18, p. 16). This circumstance becomes pertinent to policy and planning directed toward reducing unemployment and underemployment of the Alaska Native work force when policy is confronted with the practical realities of operational procedure and costly logistics.

Without question, almost all Villages hold some men and women who could be gainfully employed some place in the state for some period of the year. Equally unquestionably, a portion of these men and women hold limited saleable skills and competencies and have personal preferences that can effectively remove them from the labor market except under highly localized circumstances. A number of men and women whose labor is demanded in the primary annual subsistence harvest are usually part of the interdependent family or household annual commercial/subsistence fisheries endeavor. This employment is an important, if not primary, source of Village household annual earned income. For Native people whose regular place of residence is a rural Village, to be individually identified, given occupational classification, assigned a skill level, and registered in keeping with periods and places where and

when available for employment is a task the State and Native organizations have been struggling to accomplish for nearly 10 years. Where reasonably adequate telephone communication and relatively close land approximation between Villages and job service centers or local employment facilitators are present, workers and employers alike have access to workable recruitment and hiring practices. Too often, workers and employers face conditions between the two extremes faced by residents in the Aleutian Islands and those in Villages along Alaska's limited north/south highway. Aleutian Island Natives have a four-hour flight at costs of up to $450 one way to reach the nearest Union direct-dispatch center in Anchorage. Residents of Nenana, by contrast, can get to Fairbanks by auto or small aircraft within an hour, weather permitting. In the majority of cases, the physical barriers related to recruitment and prompt response procedures for rural residents are costly and frustrating for all concerned. One alternative involves providing individualized personal support services from some appropriate source to aid employable Village adults actively seeking work to notify employers and to be transported to places where suitable employment opportunities are anticipated. A necessary consideration would be a need to establish built-in worker recruitment quality control and assurance in conformance with employer hiring commitment needs in the event temporary life support facilities are to be established to foster faster deployment of rural workers to job sites some distance from place of residence.

Enrollment and Region Cultural Considerations:

The contemporary Alaska Native population is divided into three racial categories with five major and two smaller culturally distinct sub-categories. The ethnic subdivisions conform to Alaska Native Association boundaries singly or in geographically contiguous groups. With the exception of Anchorage, Fairbanks, and Juneau (in descending order), the Alaska Native population tends to reside in conformance with late prehistoric aboriginal settlement patterns, with Native Region boundaries in keeping with subcultural divisions. Cook Inlet is shown as holding Native residents from all aboriginal origins, although in prehistoric times the area was populated by both Yupic Eskimos and sub-groups of Northwest Coast Indians. For all practical purposes, the Cook Inlet Native Association serves as a voice for most Alaska Natives residing permanently in the Anchorage area as well as those who are enrolled for the Region. Fairbanks and Juneau hold a substantial number of the representative Alaska Native cultural groups, but commonly these individuals actively self-identify with the Native Association where they are enrolled.

For interested persons not familiar with the several major ways Alaska Natives are enumerated, terms like Region, Association, Corporation, Reserve, Village, Enrollment, Native, and Indian can be confusing and lead to misunderstanding. The Alaska Native-specific terms listed, together with a few other terms more commonly or definitively used in Alaska than in other states will appear in discussion throughout this document. Terms or abbreviations likely to be troublesome are listed and defined

in Addendum A. Although the definitions given terms for purposes of this report may serve as an aid to communication, it should be recognized that certain of these terms are subject to legal definitions, as well. For example, in Alaska, Native Village or Village is the label assigned to rural communities of preponderant or virtually exclusive Native population and is commonly used to refer to any Native community regardless of its form of local municipal government. Villages, however, through established procedures, have selected from all the local government options open to them--First or Second Class City, Village, or Home Rule. Native communities are additionally categorized as Alaska Native Villages by the U.S. Department of the Interior for purposes of administration under terms of the Settlement Act. In some cases, organized Villages, as federally recognized entities, exist within the boundaries of the larger urban metropolitan municipalities. For purposes here, Village will refer to a rural Alaska Native community recognized as a populated place by the State and Federal Governments.

Alaska's political subdivisions are Organized and Unorganized Boroughs. Organized boroughs (similar to counties in other states) occur logically where there is sufficient population density and community infrastructure to support this form of government--namely areas where the largest communities of the state are located. First and Second Class cities make up the majority of Alaskan communities, although most Second Class and a few First Class cities are also Native Villages. Alaska

Second Class city status is commonly selected by communities ranging in size from 100 to 2000 people, regardless of resident minority characteristics (3).

Alaska Native Enrollment reports are easily misunderstood. In accordance with the Claims Settlement Act, all Alaska Natives, regardless of place of residence or age, if alive as of December 18, 1971, are eligible to be enrolled as direct beneficiaries of the Settlement Act provisions provided certain stipulations are met. The Enrollment process is administered jointly by the Juneau Area BIA and the Alaska Federation of Natives (13). After proper individual verification, all enrolled Alaska Natives are eligible to share in settlement Act benefits individually and/or in accordance with any additional group benefits accruing to the sharing category associated with the self-identified place of origin. Self-identification establishes an enrollee's personal status as Region, Village, Reserve, and/or Alaska/non-Alaska resident.

Presently the total Alaska Native Enrollment is reported to be 78,437 (5). This figure includes all Alaska Natives in the U.S. who enrolled before the Rolls were closed, and all persons deceased since December 18, 1971, are included. The Enrollment for living Alaska resident Natives as of April 1976 is reported to be 58,637, with 17,902 (30.5%) being men and 16,954 (28.9%) women over age 18 (5).

The Alaska Native Roll was authorized under Public Law 92-203 and Enrollment closed as of March 30, 1973. Since it appeared a number of eligible Alaska Natives

may not have been included on this record, Enrollment was re-opened under Public Law 94-204 in January 1976. Presently an estimated 2,000 names are pending verification of eligibility. In general, an individual must be at least one-quarter or more direct aboriginal genetic descent from one or any combination of the Alaska Native racial groups, and have been alive on December 18, 1971. Any Alaska Native children born after that date are not eligible for Enrollment under the Act. Enrolled non-Alaska resident Natives or Natives not physically residing in the state as of April 1976 total 11,301, with 4,534 reported as enrolled to the 13th non-Alaska resident incorporated Region. These figures are based on results of the Enrollment process ending early in 1974. At that time 61,283 persons were reported as living enrollees (4, p. 107).

As of April 1976, the verification procedures had reduced the number of living Alaska resident Enrolled Natives to 58,637 (5 and 17). According to information received from the Alaska Native Enrollment Office, the most reliable figures related to actual Enrollment (by place of enrollment, sex, and age at the time of enrollment) are to be extracted from the April 19, 1976, Enrollment computer printout. These are also reported to be the most current detailed enrollee characteristics readily available to legitimate research requests (6).

Two conditions need to be imposed when Enrollment data is applied in socio-economic problem solving (17):

- The Tsimshian Indians of Metlakatla (Annette Island Reserve) are not included in the Enrollment, but they are generically Alaska Natives.

- In early 1976 approximately 7,000 enrolled Alaska Natives reported as not residing in Alaska (but enrolled to an Alaska place) were shown by the BIA to be temporarily out of the state attending college or receiving technical training (13). This may suggest some means of establishing a statistical factor for dealing with distribution of Native population age groups when estimating numerical parameters of the Alaska Native work force on a statewide basis. Due to the categorical level of education assigned to the student group, it may be safely assumed these are Natives aged 16 and older. It may be that greater detail regarding adult students "outside" can be made available from the Juneau Area BIA in the not-too-distant future.

Traditional Economic and Manpower Considerations:

Significantly large numbers of Alaska Native "urban" and "rural" youth and adults are engaged seasonally in full- or part-time subsistence harvest activities. This labor is expended in pursuit of general livelihood and/or self-sufficient household and Village economy and survival. A small, but unknown, number of the rural Village residents engage in subsistence harvest activities on a year-round basis. Nothing is presently known to suggest that this part of the basic economic pattern for rural resident Alaska Natives will change greatly over the next 10 to 20 years. It is reasonable to anticipate, however, a gradual dimunition of the current level of individual household dependence upon these activities proportional to the rate of Region/Village modernization and the resulting increased opportunities for local cash income employment (6).

Persons inexperienced with Alaska Native Village life, and the internal economic patterns subserving the Alaska Native population, tend to visualize subsistence

based livelihood as an exotic or "primitive" form of individual and household maintenance. The romantic appeal of this notion is equal to the degree of misunderstanding that supports it. If the patently obvious differences are acknowledged, a well-understood example may be used to help clarify the role of subsistence labor force requirements in terms of Alaska Native Region economic product and consumer demand.

Throughout U.S. history, small, isolated, virtually self-sustaining farms (homesteads) were established in wilderness areas. As "civilization" moved into the areas where the farms were located (unless already present for non-agricultural reasons like new railroad construction), small communities appeared to provide the schools, churches, general stores, and services needed to support the farm families. Children were a household economic asset, since the labor they would eventually supply was expected to expand the family's economic base in one form or another. At the turn of this century, significant numbers of small, largely self-sufficient farms existed throughout the less accessible rural areas of the 48 states. In keeping with the natural surroundings, homesteads were heavily dependent upon an annual harvest of wildlife - fish, large mammals, birds, water fowl (and eggs), wild plants, or other indigenous substances for sustaining life and producing surplus for sale or barter. Except for an occasional lonely trapper, once established the homesteaders were mainly farmers and ranchers who produced much of their food supply from tilled fields and their own domestic animals and fowl. Natural harvest for household use, particularly meat, fish, and game byproducts, remained a vital and necessary part of household survival and

economy. With passing time, some of the youth disappeared into the cities and towns through various avenues open to them for self-sustaining cash employment. Until the early 1900's, however, the majority of the young people who did not remain directly on (or associated with) the family homestead commonly continued to contribute cash or services to the farm based members of the family. Except for the most economically fortunate, the homestead in turn shared its products with these members and provided a haven for them whenever a need arose. Until the late 1930's (although beginning to decline rapidly), this rural economic pattern remained viable to a significant degree in the more sparsely settled areas of the nation (7). Few second-generation descendants of western state homestead families who are now aged 40 years and older do not recall the interdependence of their town-based parents and farm-based grandparents, or the annual fish and game harvest upon which both families depended for sustaining an adequate year-round family food supply. Similarly, for some contemporary western U.S. and many Alaskan non-Native families, fish, moose, caribou, venison, and other game are still considered a necessary economic supplement to the annual family food supply (8).

In the case of Alaska Native Villages and households, nature serves to seed, breed, and develop the annual household harvest, although the harvest times are regulated by fish, game, and land use laws as much as nature. Present primary dependence of the majority of rural Village households upon the annual fish, game, and wild edibles harvest as basic staples of diet is well documented and generally

acknowledged. There can be little argument that approximately 75% of the rural Village households would suffer severe financial, social, and possibly physical hardships through sudden prolonged and extensive disruption of subsistence harvest patterns of local manpower resource utilization.

An early dramatic example is found in the fate of St. Lawrence Island in the winter of 1878-79 when natural and non-Native man-made conditions disrupted the annual walrus harvest. An estimated 1,500 Eskimos died from starvation and other causes directly associated with this situation (9). The population has never recovered, and in the 1970 Census, the island held only about 750 Eskimos. Instances of specific but less catastrophic Village social and economic disruption through loss of a substantial portion of its able-bodied adult population to distant short-term wage employment has been reported as recently as 1974-75 (4, pp. 162-165). Whatever was reported in this context is known only from the references surveyed in 1975 and cover only the visible effects at the time the event occurred. No substantial investigation focusing upon the realities of past, present, and potential future impact of broad major disruption of subsistence labor patterns in the Villages imposed by response to short-term labor-intensive statewide employment demands was identified in the literature surveyed on behalf of this study.

When the parallel between turn-of-the-century isolated homestead households and rural Alaska Native Village households is used as an illustration, it must be recognized that no Alaska Native home or campsite functions without modern goods

(e.g., gasoline, basic food and clothing staples, tools, tackle, and implements necessary for survival and minimum comfort).

Financial aid for the elderly, physically incapacitated, or dependent children is usually received in a substantial number of rural Native households. Surplus labor or craftwork and supplies that can be bartered or sold are part of household support in many cases. The extended family ties in most Villages are generally close to some member who is usually engaged in cash-producing work at some time of the year. This eventually becomes part of several individual household economic support mechanisms. Thus, it would be virtually impossible to locate a single Alaska Native rural household that is solely dependent on subsistence harvest for survival in the traditional sense. Of tantamount importance is the need to recognize the fact that unquestionably the preponderant populations of Native Villages <u>are</u> economically dependent upon the primary or secondary products of subsistence labor to some significant degree (standard references). Many households in the isolated Villages, however, are wholly dependent for basic physical and financial security upon the amount and variety of the annual natural harvest. Examples of this may be found in recent instances when annual Village shipboard consignments of processed foods and fuel were delayed due to weather. Only the remnants of the previous yearly shipment and available local game and fish harvest reserves prevented starvation conditions before emergency supplies could be flown in (4, pp. 167-168).

Through modern adaptation of traditional customs, the food and by-products of the natural harvest are distributed throughout rural Villages. Goods, services and cash are exchanged for natural ("Native") foods and the byproducts commonly used as raw materials for clothing and other handmade household articles, or in the manufacture of highly saleable Native arts and crafts. Distribution of natural harvest products to the elderly and needy is generally managed through dignified and frequently nearly invisible traditional practices. In certain Regions or Villages, wealth in the form of cash, purchased non-Native foods and goods, and products of the natural harvest are distributed throughout the community in ceremonies like the Whale Festivals in the Arctic, or Southeast Indian Potlatches.

A reciprocal responsibility is found in most Alaska Native families similar to the one exercised by turn-of-the-century homestead families. Those who leave the Village temporarily (or retain Village ties) are expected to contribute to the economic resources and subsistence labor needed by those at "home." The Village based family is expected to share its subsistence harvest products with those who cannot personally obtain them.

If the urban based (or absent / employed) extended household members enjoy a good cash income, Native foods, crafts, and other products are commonly purchased from Village connections at prices equal or nearly equal to those paid by non-Natives. For example, herring eggs spawned on kelp are a prized delicacy by Southeast Indian

people as well as Japanese and a number of others familiar with the taste. Employed immediate family members of those who harvest this product were paying $15 per pound in 1974, while non-members (who could find a seller) were normally charged no more than $15 to $20 per pound. At the opposite end of Alaska's geography, family members were paying $5 per quart for fresh seal oil and $3 per pound for raw ivory, while direct non-Native buyers known to the families were able to purchase these same items for an equal amount or, at most, for an additional dollar or two.

More than 15 years of active participant-observer research, together with substantial research reports (as represented in the Bibliography) provide conclusive evidence sufficient to support the opinion that all Alaska Native rural Villages (with the possible exception of Eklutna near Anchorage) depend heavily upon the annual fish and sea or land mammal harvest for both a major part of the basic food supply and usually as a source of household income (cash, goods, or services). Fresh, home-dried, smoked, frozen, or canned fish is an important item of regular Village diet. Most surplus home-processed fish is highly saleable and the profit is substantial.

Villages of the interior Indians also depend upon large and small game for red meat, and water fowl as a meat variation, for a long-established and nutritional high-protein diet. Considerable trading between Villages for these harvest product surpluses permits some households in the Interior to also acquire sea mammal foodstuffs and other

products from the coastal regions. All other rural Alaska Native Villages have some direct or intermediate access to food and byproducts from the sea, as well as riverine products and the large and small game and other customarily useful materials from the lands surrounding the Villages. The importance assumed by specific animal, fish, shellfish, fowl, or other natural harvest products in the basic annual Village or Village household economy depends upon locally commonly available species. How the indigenous foods and other natural products are preserved or processed depends upon the level of modernization in a particular Village, as well as the current demand for traditional and modern tastes in food. Regardless of how (or what) natural foods and products are harvested and processed, the subsistence harvest is a pervasive, on-going, labor-demanding, local economic activity for virtually every Alaska Native Village (4, 10, and 11).

The subsistence harvest may be categorized as the present predominant internally produced product of the resident Alaska Native Village population--particularly when it is seen as concurrent with any local annual commercial fishing and trapping activities and/or for non-Native sport and recreation hunting guide and transportation service. With national and local inflationary conditions, the critical role in intra-state Alaska Native population food production and exchange played by the seasonally labor-intensive subsistence food harvest and when concurrent, the commercial fishing cash return is obvious.

The almost invisible role played by the subsistence harvest in the delicately balanced exchange of cash, goods, and services carried on internally throughout the Native population is seldom openly acknowledged, frequently unrecognized, and as far as is known has not been subjected to systematic research and/or economic evaluation. Various agencies of government, most notably responsible Alaska-based officials with the BIA and the National Parks System, have in the past sought without success to be enabled to assess this aspect of Alaska Native internal economy (11). As a different and less obvious example of the economic role played by subsistence harvest, walrus ivory, tree bark and roots, whale bone and baleen, wild grasses, sea mammal and game sinews, and the raw materials for natural dyes are collected and processed by individuals engaged in the profitable production of Native arts and crafts. These items are also sold or traded to Natives and non-Natives as raw materials for craftsmen. The same holds true for bone, teeth, hides, pelts, and skins of food producing game, as well as prehistoric artifacts and recovered wooly mammoth tusks and bones. With controlled access items like raw ivory presently selling for approximately $20 per pound, and raw baleen (from the bowhead whale) at about $12 per foot, the cash producing value of these products to Native Villages is substantial. The ivory trade alone is estimated at close to a million dollars annual average in 1978.

The limited availability of arts and crafts materials and unique circumstances that produce the resultant Alaska Native handicrafts assure a continuing market demand

for both the supply of raw materials and the finished products. On-going trade specifically internal to the Alaska Native population--whether in buying, selling, or exchanging goods and services associated with the subsistence harvest--before any product reaches non-Native middle-man handling should not be discounted or minimized simply because it has not been measured and reported.

The most comprehensive contemporary official documents dealing with internal Alaska Native Village economy state without equivocation that the role of subsistence harvest activities in sustaining healthy human diets and maintaining Village viability is self-evident (10 and 11). In-depth topical research from a variety of professional perspectives fully support this conclusion (4). It is reasonable and logical to suggest that an economic substructure rooted in the subsistence harvest produced by what a given local Village labor force can supply to meet its needs with some surplus for trade is still the primary foundation for a minimum self-sustaining internal local Native Village economy. Regardless of human services delivery, employment at local levels or Region employment associated with Native corporate affairs, business ventures, and CETA, the quantity and quality of demand on local Village labor force needed to support subsistence harvest and community maintenance or survival activities as these normally occur must be afforded adequate and appropriate responsible recognition and treatment.

To produce a substantive report fully describing the economic and social impact of subsistence harvest on the Alaska Native population with implications of effect on

the state economy would require an investigation and the resources of the scope and magnitude of Alaska Natives and the Land (compiled by the Federal Field Committee for Development Planning in Alaska in 1968) or the 2(c) Report: Federal Programs and Alaska Natives (undated, available in 1975 through the BIA). In the absence of any known on-going comprehensive study dealing with the subject, it is necessary to draw upon topical reports associated with the subject from a variety of authoritative sources in the effort to suggest the vital economic role played by subsistence harvest activities and the minimum number of prime working-age Natives regularly required in the harvest labor force.

A 1974 study dealing with the Bristol Bay fisheries area (slightly larger than the Bristol Bay Native Region) emphasizes the pervasive importance of year-round subsistence fishing as a major household food source. Land or sea mammal and water fowl harvest is shown as an important part of the annual Native family food supply. The hunting seasons or periods, when included with year-round fishing activities, combine to make subsistence harvest activities virtually a full-time occupation for those households which elect to maintain a traditional Village lifestyle. By the size of fish, animal, and fowl catch recorded for subsistence harvest since 1963, there can be little doubt that of the approximately 3,100 Native people living in the Bristol Bay drainage area, virtually every Native household is heavily dependent upon the regular flow of food resulting from year-round activities in support of the total annual subsistence harvest (12, pp. 1-3; and 6, pp. 19, 20 and 21). Added to this consideration is the recorded dependence of

Native households on the sale of surplus salmon taken under commercial licenses, or employment with local commercial fish processors or fishermen while concurrently engaged in salmon subsistence fishing, as one of the primary sources for earned annual cash income for a predominant number of the 21 Native Villages of the Bristol Bay area.

There can be little question that since 1970 conditions have not changed significantly in relation to the annual Village subsistence fish harvest pattern, with or without concurrent employment in commercial fishing or fish processing. A 1970 Census Supplemental Report notes that "to a great extent, Alaska natives hold seasonal jobs (especially in the fishing industry); . . ." (15, p. 2). Another authoritative source, when addressing employment in the Bristol Bay Area, states that:

> "Due to the highly seasonal nature of the industry, computing average annual employment by adding average monthly employment and dividing by twelve grossly underestimates the importance of seafood processing. . . . in 1972, an average of 402 people were employed in [seafood processing] but, . . . 1,835 persons in July [were employed]. The employment during the peak months gives a closer approximation to the number of people engaged in seafood processing in the course of a year. Alaska's employment statistics also understate the impact of the fishing industry, because there has been no reliable estimate of direct employment in commercial fishing. Since most commercial fishermen are self-employed, they are generally not included in the estimates of total employment. In 1970, Rogers estimated that 2,980 fisherman were employed in Bristol Bay during July." (Bristol Bay: A Socioeconomic Study, pp. 3-10, 3-11) (Bracketed material added for clarity)

The estimates of employed persons appearing above are not described in terms of racial characteristics. The data are reported in terms of Bristol Bay resident employment and income. Due to the fact that area population is 66% Native, but the Villages

virtually 100% Native, concensus is found among authorities that fishing constitutes the primary life-sustaining occupation in the Villages. It may be reasonably assumed from available information that Native employment related to local commercial fishing activities is at least numerically proportional to that of the area's Native/non-Native population ratio.

A conclusion of the Bristol Bay study is that "Because of the high cost of living and the relatively low incomes, it seems clear that subsistence activities are necessary in the Bristol Bay region to augment cash incomes" (12, p. 17).

Estimates taken from the 1970 Census for the communities in the Bristol Bay geographic area discussed here indicate approximately 1,547 Alaska Natives aged 16 and over reside in the local communities. Of this number 1,128 (73%) were reported as being employed for some period out of the year, with approximately 685 (61%) being employed 13 weeks or less, while 417 (27%) were reported not employed. These estimates generally reflect a proportional profile for Bristol Bay Native Region internal domestic economy if described in terms of labor required for functional life support system prevelant in Native Villages generally similar to those of the Bristol Bay Region.

In 1970, 277 (18%) of the Bristol Bay Alaska Natives over age 16 were reported employed 40 to 52 weeks of the year, with 218 (15%) employed from 14 to 39 weeks. It is noteworthy that the male/female ratio for employment follows the logical pattern for a harvest oriented society with nearly double the males working full time; nearly

two-thirds of the females not employed; males engaged in almost three-fourths of major part-time employment; and short-term (probably seasonal) employment almost equally divided between sexes (12, pp. 3-8). Employment associated with local work force demands in keeping with the Bristol Bay Native Region needs, when combined with new jobs created through CETA and similar programs may have increased local Village full- and part-time employment to a relatively substantial degree. In this case, it may be safely assumed that movement of local youth into the 18 through 64 age group, together with out-migration and attrition through death, will have offset any significant change in the annual employment profile described for Bristol Bay. In the final analysis, for Villages relying heavily on an internal consumer economy based on the annual subsistence harvest, it may reasonably be assumed that the proportional ratio of individuals :time periods :cash income producing employment will be generally consistent well into the 1980's.

The foregoing paragraphs in this section are not intended to depict an achronistic way of life in the Villages. Rather, based largely on data from one Native Region area, the intention is to describe an illustration for some of the most visible functional aspects of the role played by subsistence harvest activity in most Native Villages. Presently, subsistence harvest and the labor it commands is an important factor in Village community and household economies. The degree of importance varies from Village to Village, but to a substantial degree Villages remain viable because of the annual subsistence harvest. Conversely, the subsistence harvest continues as a

primary Village function because Village survival is dependent upon the sum total of products from the harvest.

Although there may be little reason to doubt subsistence harvest activities may eventually decline as a main source of remote rural Village stable food supply, this information has been presented in considerable detail because for the foreseeable future all evidence indicates the present situation will continue: A general conclusion appears to be that careful and thoughtful analysis must be exercised in situations where the resulting decisions may impose conditions that can upset the not yet fully understood dynamics of internal rural Native Village economic practices. The Settlement and Self-Determination Acts have provided the foundation for a gradual evolutionary modernization process for Alaska Natives. The dilemma faced by Native leadership, government, and employers is the need to respond constructively in matters associated with affirmative action goals in employment of Alaska Native workers without destructively siphoning off human labor or time for education needed by individuals to sustain the growth and development of incorporated Native Regions in an orderly and progressive manner.

Contemporary Economic and Manpower Considerations:

Some indication of stable employment demands made on one local within-Region Alaska Native work force segment may be drawn from a current situation as reported for the North Slope Borough (Arctic Slope Native Region).

Through assistance from responsible personnel at the Anchorage Office for the North Slope Borough, conservative estimates for known stable Alaska Native employment demands associated exclusively with business, human service delivery, or local government were derived on the basis of observation and in-house documents (1 and 2). These estimates are not considered to reflect all Alaska Native work force employment in the Region, but are considered to encompass a substantial portion of the locally employed Alaska Native workers. It should be noted that the figures are considered by the informant source to be minimum estimates for known employment.

The employment reported is judged to be directly in support of business or human service delivery that may be categorically termed "Region-internal Native Affairs." The positions described are believed necessary to sustain local Native businesses and/or local government and to execute human service delivery contracts negotiated with government agencies. Some of the Region, Borough, and Navy Arctic Research Laboratory employment reported is subject to regular statewide recruitment, but in actual practice the number of filled positions reported for local Native residents remains generally constant. Several of the occupational employers reflected by Table 1 are reported to anticipate expanding their demands on the local Native work force. Other occupations listed are believed to be permanent year-round, seasonal, or part-time jobs that are now (or are intended to be) a regular part of the annual Regional work force utilization pattern. In addition to stable demands on the local work force as reflected in Table 1, the summer months bring a peak demand on the local Native labor supply through

Village private construction and repairs, longshoring and lightering of annual shipboard supplies, and activities related to subsistence harvest activities.

The employment as reported on Table 1 reflects only Native persons whose job sites are located within the Borough's boundaries and does not include those who reside in other parts of the state unless their jobs are directly connected with regular Borough residence. No attempt has been made to estimate the number or types of jobs that might be held by Alaska Natives in the Borough through anticipated new position openings, forthcoming construction projects, or applications that might be made for extant positions now held by non-Natives that may become vacant and subsequently filled by persons in the local Native work force (1 and 2).

Due to current efforts by the North Slope Borough and the Arctic Slope Native Corporation, however, there can be little doubt that present efforts to expand full- and part-time employment opportunities within the Borough parameters will continue to meet with some substantial success in the foreseeable future. Present intensive activity in response to corporate planning is producing education and training program offerings that can be expected to raise the general resident area work force occupational qualification level sufficient to maintain (and probably expand) the present supply and demand for locally available Native workers.

The estimates for employed persons appearing in Table 1 are reported to include only Native persons who are between the ages of 18 and 65 years. The scheduled Summer Youth Activities Program will employ seven Village Elders in addition to the

number reported--a portion of the latter may be between 14 and 18. The Winterization Program presently has 23 adult trainees being prepared to repair and improve the housing of elderly Natives throughout the Borough. Successful trainees will be dispatched in mobile teams to various Village work sites. Some of the anticipated seasonal summer jobs--including a portion of those in the Summer Youth Program--are expected to be filled by high school and college youth home for the summer, or by adults who are available for employment only during this season. No reliable estimate is presently available for the number of Arctic Slope Region residents who may be available to meet immediate statewide work force recruitment demands. Present North Slope Borough Native work force demands within the Borough boundaries must take into account effects of local recruitment for the 1978-79 new housing or other construction work scheduled in the various Arctic Slope Villages:

Anaktuvuk	New general store
Atqasuk	New housing
Barrow	New multiplex housing, completion of the Region Corporation office building
Barter Island (Kaktovik)	New high school
Nuiqsut	New community school
Point Hope	New housing, expansion of clinic, new high school

In Table 1, information reported to reflect only minimum stable employment demands shows an estimated 600 Native persons are presently regularly employed in predominantly premanent positions (whether full or part time) in North Slope Borough and Arctic Slope Region interests. Of these individuals, except for physically

demanding jobs normally held by men, the employed Alaska Natives shown on Table 1 are reported to be 50 to 60% women. The February 1978 BIA Report of Labor Force shows a total Arctic Slope Region Native resident population of 4,850, with a total working age (16 + years) population of 2,685, of which 654 persons (354 men and 300 women) were employed and 367 unemployed and seeking work. The figures result in showing for the Arctic Slope Native Region resident members, the 16 and over age group may be only 23.5% of the total population. Greater confidence may be afforded the BIA reported estimate showing the extant Native work force as 1,021, being 66.1% of the over age 16 population deemed "potential labor force" by the BIA. The Native work force of 1,021 persons is almost evenly divided between men and women (56% : 44%). Those reported as unemployed and seeking work are presumed to be persons who live in the seven Native Villages (from a total of nine communities in the Borough--one being a military installation and the other Deadhorse--the supporting facility for Prudehoe Bay activities). These Villages are widely separated from each other by great distance and uninhabited terrain covering some 84,531 square miles. Reported as unemployed and seeking work are 225 (61%) men and 142 (39%) women. The 367 persons unemployed and seeking work are 36% of the first quarter 1978 Arctic Slope Region work force (23).

Unfortunately, BIA figures are not comparable to data reported by the North Slope Borough for employed Natives in the Region in May of the same year. BIA

figures, like the estimates of employment obtained from the North Slope Borough, do not describe annual patterns of full- and part-time employment, subsistence labor demands, regular term-periodic employee commitments (like longshoring), occupational skill level classifications, or place and worker time period availability. Some reasonable conjectures, however, may be drawn from the information available.

- February and March are two of the three lowest work force demand months of the year. Local employment reported for these months can be regarded as a minimum annual estimate of demand on the resident local Native work force. That is, approximately 26% of the resident persons over age 16 are counted by the BIA as being in the Region's Native work force.

- According to the limited information solicited from the Borough in May 1978 (three months after the periodic 1978 BIA Native labor force data were reported) some 570 to 750 Native Region persons will be employed by the Borough/Region as of June 1978.

- If it is accepted that the BIA estimate work force (employed and unemployed seeking work) represents a reasonable proportion of Native work force to Alaska Native Region population, the May Borough estimate for local Native employment demand represents about 56% of the Region's Native work force, and may represent about 88% of the reported employed in February 1978.

- The February estimates of students over age 16 not then available to the work force is 282. If these individuals are added to the February "seeking work" category, the total reaches 649. With an estimated maximum of 750 Arctic Slope Natives to be employed in jobs identified through the Borough (appearing on Table 1), it would appear that the total potential work force of approximately 1,303 persons (633 men and 640 women) is more than half (57.6%) "spoken for" to meet Region internal affairs needs when the peak local Native worker supply and demand factors are at work.

- It would be unrealistic to expect that all students over age 16 or 18 returning home for the summer will be seeking work. It is equally unrealistic to expect the utilization of the Region's Native work force to remain constant over an

extended period of time in accordance with either groups of estimates appearing here. The estimate of each work force utilization is merely illustrative in light of the fact that the Borough estimates are selective and not comprehensive for total resident Native employment in the Region. What can be stated with some measure of confidence is that the two types of information, when taken together, suggest that a maximum of between 350 and 500 persons over age 16 (of whom about 40% will be women) and a minimum of around 360 persons (in equal sex ratio) may be seeking work at some given point in the forthcoming months.

- It is recognized that the maximum employment figure rests to some extent upon successful competitive bids to be made by Native Region corporation service and construction contractors in addition to renewable on-going human service and CETA contracts with the Borough and others.

- An acceptable conclusion that may be drawn from these Arctic Slope work force utilization estimates is that when major employers are recruiting Alaska Natives on a statewise basis or are establishing affirmative action goals related to Alaska Native hire, consideration for newly created worker demand or job opportunities within any Region may have altered the number and availability of workers who can or will respond to employment (and training) offered at job sites considerably distant from home.

At the time this report was being compiled, similarly detailed information regarding within Region utilization of the Native work force was not readily available from Regions other than the Arctic Slope. Proportions will vary from Region to Region--with some being more worker intensive than others--but most of the Regions unquestionably make strong demands on the available Native work force within a given Region. Examples for Bering Straits Native Corporation and Metlakatla Reserve in 1975 appear in a previous report (4). These earlier estimates, together with current observations, suggest (1) Region internal demands on the local Native work force may be greater than is commonly believed; and (2) reliable research is needed to establish the

parameters of Native Region-internal Native work force demands for permanent and seasonal local employment (see Addendum G).

Regardless of human services delivery employment at local levels of Region employment associated with Native corporate affairs, business ventures, and CETA, the quality and quantity of demand on a local Village labor force needed to support subsistence harvest and community maintenance or survival activities as these normally occur must be afforded adequate and appropriate responsible recognition and treatment. In the final analysis, for Villages relying heavily on an internal consumer economy based on the annual subsistence harvest, it may be reasonably assumed that the proportional ratio of individuals : time periods : cash income producing employment will be generally consistent well into the 1980's.

One conclusion that may be drawn from the Arctic Slope example of stable local employment as described here is that when major employers are recruiting Alaska Natives on a statewide basis, or are establishing affirmative action goals related to Alaska Native hire, consideration for newly created worker demand or job opportunities within any Region may have altered the number and availability of workers who can or will respond to employer or training program opportunities offered at distant job sites.

TABLE 1

REPRESENTATIVE STABLE LOCAL WORK FORCE DEMAND ESTIMATES[a]
ARCTIC SLOPE NATIVE REGION - 1978

POSITIONS[a]	PERSONS[b]
Permanent:	
Health Service Delivery[c,d]	52
Para-legal Aides[d]	7
Borough School District (Classified)[d,e]	75 - 100
Borough Services[d,f]	300 - 400
Wein Airlines (Barrow)	5 - 6
U.S. Post Office (Barrow)	4 - 5
Hotel (Barrow)	10
Local construction starts and maintenance year round (Barrow)	15 - 20
Barrow City Office	7
Alaska Area Native Health Hospital (Barrow)	10
Inupiat Community of the Arctic (IRA)	10
Public media (Barrow)	5 - 6
Barrow roads and streets (state and city)	5
Village stores and post offices[d]	40
Borough Magistrate Office	3
Naval Arctic Research Laboratory	25 - 30
Sub-Total	573 - 711
Seasonal—Annual Program Funded[d,g]	
Summer Yough Activities Program	16
Winterization for the Elderly	20 - 23
Sub-Total	36 - 39
1978 TOTAL	607 - 750

a) Filled positions only, May 1978.
b) Native persons only.
c) Some positions are CETA funded but are expected to be incorporated in the permanent Borough infrastructure.
d) Full- and part-time positions are considered sufficient to meet current needs in some cases where employees may hold two part-time jobs, seasonal jobs, or have personal responsibilities preventing them from working full time on a year-round, daily basis. Information is not available regarding sufficiency of number of employees to quantitatively and qualitatively meet local needs for the type of service offered through the program in terms of workers actually employed due to constraints of funding and worker availability. Positions are scattered among the seven Villages of the Borough
e) Permanent positions prescribed for the Borough School District.
f) Includes Native Region profit corporations regularly employed contractual service employees; information reporting the number of contractor employees separately is not presently available.
g) New programs dependent upon annually re-newed funding.

Compiled by: Human Environmental Resource Services, Inc.

Source: Arctic Slope Borough, Anchorage Office, Bland Collected Field Notes, May 1978.

II
METHODOLOGY

This report stems from an investigation begun in 1974 and published as ALASKA NATIVE POPULATION AND MANPOWER: 1975. The information appearing in these pages is intended to update and expand that appearing in the earlier document. The same methodology and treatment of data has been uniformly and consistently applied in obtaining the results appearing in both volumes. A single, major departure appears in this second study in the decision to minimize 1970 Census data as a numerical estimate for working age group Alaska Native persons in 1976, 1978, and 1980. The proportions established through the 1970 Census data are used, but passing time has demonstrated that the rationale for accepting BIA and Alaska Native Area Health Service yearly estimates of Alaska Native population is more solidly founded on reality than those that might be extrapolated from the 1970 Census. Authorities agree, however, that the proportions reported for pertinent age groups of Alaska Natives in 1970--when treated with factors allowing for death and in-/out-migration--remain valid. Authorities also agree that 1970 Census enumeration for the Alaska population as a whole in 1978 bear little comparable relationship to that as reported in 1970 (33, p. 2).

An extensive review of available contemporary publications, reports, and in-house documents from state, federal, and Alaska Native sources was conducted on behalf of the study being reported here. A representative selection of the materials appears in the Bibliography in addition to the list of sources cited appearing in the Appendix.

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Information appearing in this report concerns the resident population of the State of Alaska. Most particularly, it concerns the resident Alaska Native population: Northern (Inupik and Siberian Yupik speaking) and Southern (Alaskan Yupik speaking) Eskimos; Athabascan Indians of Interior Alaska; Aleuts; and Tlingit, Haida, and Tsimshian Indians of Southeast Alaska. Population data is obtained from what are commonly accepted as official and/or authoritative sources, with other data or supportive opinion being presented from what are generally viewed as reliable and informed sources.

One purpose of this investigation is to develop reasonable estimates for the Alaska Native population aged 18 through 64 years from 1975 through 1980. When possible or appropriate, estimates will be given by sex, age subdivisions, geographic region of residence, and by Native Region. Except as passing comment, this report does not treat educational, skill, or ability levels of the Alaskan population or any part thereof, or the work experience characteristics of the Native or non-Native populations.

In statistical computation, the larger the population being treated, the more likely the results can be expected to depict reality. In comparison with other major Indian groups, the Alaska Native population is small. The permanent population of Alaska is small in comparison to other states, is highly mobile within state borders, and maintains an apparent high level of in- and out-migration over given periods of time. Research presently has no choice but to acknowledge these conditions and proceed on

the basis of available data, qualifying results by allowing a reasonable plus/minus margin for estimates derived to allow for statistical or built-in errors in source data.

More than half of Alaska's population and work force reside in the three urban centers: Anchorage, Fairbanks, and Juneau, with nearly two-thirds of this portion residing in the Anchorage area alone. To further compound the problem of producing useful, practical information describing the development, utilization, and deployment of resident Alaskan manpower, the researcher (and those who apply the research) must take into consideration the urban and rural nature of the state's population distribution, the traditional life style characteristics of the Native Villages, and a rural settlement pattern that covers nearly 600 million square miles.

This report is compiled in the belief that the best, most accurate, and officially acceptable sources for data and information are being used. All source data is subject to the errors or qualifications stated in the source documents. The extent of variables and unknowns to which the Alaskan population is subject, including the Alaska Native sub-population has not yet been described in terms sufficient to permit general application of statistical adjustment factors that enjoy uniform agreement between the various specialists in Alaskan population statistics other than those that have already been applied to the source data used herein.

Validity of results is confirmed in two ways. Data sources for establishing baseline data regarding Alaska and Alaska Native population and work (or labor) force baseline

figures from which to extrapolate estimates for the instant report are obtained only from official sources recognized by State and Federal Governments. Derived estimates and ratios for age groups within the Alaska Native population prepared for the instant report, when compared for different periods with different official sources for the same population and same periods (when these data are available), are well within research standards for acceptance as reasonable statistics for the same population. For example, the percent of Alaska Native population aged 13 through 59 years derived from the 1970 Census, when extrapolated through 1975 for the same group (then aged 18 through 64 years) conforms sufficiently with a BIA Native population report for the same age group in 1975 to validate application of age group percentage constants based on the treatment of 1970 Census data for Alaska Natives through 1975. Statistical specialists in Alaska generally agree this approach for determining age group proportions for Alaska Native data through 1980 is appropriate (17).

Reliability is established by having several different qualified persons repeat one or more various random computations providing information shown on tables compiled for this report using the same equations but applying slightly different mathematical methods. Virtually identical results were demonstrated in every instance, indicating the statistical treatment of data used herein can be repeated without significant differences in the final result.

It is believed that standard basic statistical equations commonly applied in population extrapolations in this study will produce results that may be viewed as reasonably accurate estimates for the Alaska Native population as any other statistical model that might be applied.

Primary sources for data treatment herein are the U.S. Bureau of the Census, the U.S. Public Health Service-Alaska Area Native Health Service, the U.S. Department of the Interior-Bureau of Indian Affairs, and appropriate State of Alaska departmental sources. Sources technically classified as "secondary" used herein include reports from these and other departments or agencies of government and the University of Alaska that draw upon the primary sources listed above. These include, but are not limited to:

1. Publications of the Institute for Social and Economic Research of the University of Alaska (formerly ISEGR).
2. Publications and internal reports regarding the Alaska Native population from the Juneau Area Bureau of Indian Affairs, the Alaska Area Native Health Services, and the Alaska Federation of Natives.
3. Publications and reports generated by the Research and Analysis Section of the Alaska Department of Labor.
4. Publications and reports generated by other Departments of State Government.
5. Alaska Native Population and Manpower: 1975 (4).

6. Informal interviews with responsible leaders or spokesmen for several Alaska Native associations or corporations.
7. Collected field notes and observations recorded by the author for the period 1967 through the present.

Ideally, the various figures derived from reports based upon the 1970 Census, like those generated through the Alaska Area Native Health Service and portions of the statistical tables generated by the state of Alaska, should agree. In terms of actual numbers this is not always the case, and the difference in some cases is substantial. Therefore, the method used here to present results of treatment of population data from various sources shows maximum and minimum figures with a mean and a range stated as a plus/minus percent departure from the mean. The smallest Alaska Native poulation estimates are derived from the 1970 population data. The largest are provided by the Alaska Area Native Health Service and the periodic Report of Labor Force compiled by the Juneau Area BIA.

The Bureau of the Census periodically publishes updated estimates for the populations of the various states by census divisions and metropolitan areas. The most recent report for Alaska was issued as of October 1976, giving a provisional total estimate for the state as of July 1, 1975, as 352,000 persons. This is shown to be a 16.3% change from 1970, with 6.6% attributed to net in-migration. The interim census reports do not provide detail information regarding sex, age, race, or the military portion characteristics of the Alaska population.

Data Treatment

In selection of method for treating data, cost effectiveness and tolerance limits for margin of error in manual computation were weighed against the various choices available in package model programs offered through computer service agencies or the creation of a computer program specifically designed for this study. After due deliberation, it was decided to apply standard basic statistical tools in a uniform and consistent manner in a manual treatment of data. It is believed this will enable others to repeat all or parts of the computations for verification. Additionally, it is believed that this approach to treatment of data will permit a more easily understood and communicated analysis and interpretation of results.

Baseline data are developed from the various sources. These data appear in a series of tables generated for this report and a previous study, Alaska Native Population and Manpower: 1975. Tables are classified according to data source, progressively condensing and summarizing results to a point where comparison tables and charts can be generated. When comparisons are made within results obtained from the same data source, or between results obtained from treatment of different sources of data, maximum, minimum, and mean with plus/minus factor are given. Occasionally totals may not agree in tables due to rounding, but internal differences are insignificant. In tables dealing with populations for the geographic regions, totals for the Native population include that population as given for Census District #12 in the

Southwest Region. In all other tables, Census District #12 Native population figures are included in the Cook Inlet Native Region totals.

Five algebraic formulas are consistently applied as appropriate throughout treatment of data and the generating of tables and charts:

1. To obtain age groups within the 1970 Alaska Native population from data given by various sources:

$C = B/A$
$X = CD$

A = Total Alaska population
B = Alaska Native population
C = Derived percent of B
D = Total population within age group
X = Number of Alaska Natives within age group

2. To obtain Mean:

$X = (A+B)/2$

A = Maximum figure for population treated
B = Minimum figure for same population
X = Mean

3. To obtain Range:

$X = M+(A-B)/2$

M = Mean
X = Range

4. To obtain estimated decrease due to death:

$X = AB/1000$

A = Population being treated
B = Crude death rate for population treated
X = Estimated yearly decrease

5. To obtain crude Alaska Native Net Natural Increase:

$X = ((A-B)/C)-D$

A = 5 year mean births
B = 5 year mean infant deaths
C = 1970 population/1000
D = Death rate as per #4 above
X = Net annual rate of natural increase

In treating the collected population data, the data are divided into two source categories: 1) national - the 1970 Census, and 2) local - State of Alaska, the BIA, AFN, and AANHS. The percentage applied throughout for the age groups 10 through 56, 8 through 9, and 54 through 55 in 1970 (and thus 18 through 64 in 1978 and 1980) were derived from the 1970 Census data detail as given in Vol. X, No. 2, 1973, ISEGR. The Alaska Native mean death rates were computed as the average for each of the Native association regions since 1968 as appear in the 2(c) Report (Task I, Health, pp. 4-5) and subsequently verified and extended by in-house documents supplied by the Systems Development Section of AANHS.

In order to describe as accurately as possible the population distribution for Alaska Natives on the basis of available data and to provide comparative figures for verification of computations performed for this report, data were obtained and treated separately for six different geographic divisions of resident population:

1. 296 communities (Census units) assigned by location to the 12 Native Association regions;
2. 29 Census Districts;
3. 5 geographic regions as commonly used in state and ISEGR publications;
4. Native Association Regions;
5. 5 Bureau of Indian Affairs Agencies; and
6. 7 ANS service units.

For these geographic divisions, data treatment is reported herein primarily in terms of the 12 Native Association regions and the 5 (ecological) geographic regions. Data conformed to labor market areas are reported but not emphasized.

Employment and work force data were obtained from official State and BIA reports. The main reference for Alaska Native work force data is the BIA Report of Labor Force which gives figures in terms of age 16 and over. To obtain an estimate of the Alaska Native Work Force age 18 through 64 years derived from this figure, the appropriate formula as described on the foregoing pages was applied.

The death rates and net natural increase rates derived for treating data used in this study, or applied as given by the source (when so specified on the tables or charts), are believed to be the most valid and reliable means for obtaining estimates appropriate to the population data being treated. Where appropriate, these are applied as a constant in treating the various data to obtain projections. A second constant used in data treatment is the derived percent of Alaska Natives between the ages of 8 through 54 years in 1970 extrapolated through 1980. For all practical purposes, there appears to be no more valid and reliable statistical method upon which to base computations for deriving these two constants other than those described here. Since all population data for Alaska, including the Alaska Native population and Alaska work force estimates, are subject to many qualifications, it is believed that the use of the two constants just described is as reasonable and appropriate for the purposes of this report as any others that might be applied.

Data are treated according to source. Each source is treated progressively to a point where comparisons may be made between figures for the total Alaska Native population and the age group ultimately 18 through 64 years in 1975, 1978, and 1980, using

the data that are available from the different sources. As far as is known, Alaska population characteristics in detail appropriate for this study appear only in Vol. X, No. 2, Sept. 1973, ISEGR, or in computer printout (giving no greater detail) directly from the 1970 Census tapes. The Census data appear by 296 Alaska communities by number of persons by age and sex for the whole community. The ethnic origin (race) appears only as a total number by race for each community. The percentages for totals and age group subtotals for Alaska Natives were derived from these basic figures. The derived percentages were compared throughout the treatment of data with various reports of different past and subsequent years obtained from State, BIA, and AANHS reports and are generally found to conform within plus/minus 5% with these historical data sources. In the 1970 Census data report, Vol. IX, No. 2, Mar. 1972, ISEGR, an additional 4797 Alaska Natives are enumerated by Census District totals, but apparently were not included in the detailed report for Alaska's 296 communities. The derived percent for the age group appears for this data only in any tables so indicated. The Alaska 1970 Census Altas provides population location data by the smallest units used for Census reporting, enumeration districts. These figures were used, together with the aforementioned ISEGR publications, to derive Rural Alaska and Alaska Native population distribution for the 12 Native Association Regions. By this method, baseline data from the 1970 Census were obtained, and statistical assumptions derived for application in treating Alaska Native population data based upon the reported 1970 Census for Alaska were established for use in this study.

According to explanatory information accompaying ADOL statistical reports, work force data is reported by "total employment and unemployment," the "total employment figures include self-employed persons, unpaid family workers, domestics, agricultural workers, and workers directly involved in work stoppages, as well as nonfarm wage and salary employment adjusted to multiple job holding and commuting," and "unemployment estimates include all jobless persons looking for work." Source of work force data are "contribution reports filed quarterly by most employers in the State," "reports filed by federal agencies under the federal unemployment insurance program," and "state and local government employment . . . reports which these government units send" to ADOL. Thus, ADOL work force data reporting does not actually reflect an estimate of the state's population aged 16 years and older (some ADOL publications note that the work force includes these ages), nor does it estimate manpower potential as a part of its various standard regular periodic publications dealing with work force and population statistics.

The BIA periodic Report of Labor Force deals with the resident Alaska Native population, apportioning it by age groups and persons employed, unemployed, engaged in activities precluding employment, and those not seeking employment. It is therefore possible to establish Native and non-Native components for the Alaska work force by treating comparable data from ADOL and BIA. It is further possible to draw reasonably firm comparisons between these components when reporting dates coincide. It is not possible to draw comparisons or construct ratios on the basis of manpower potential

for the Alaska Native/non-Native population components (i.e., a theoretical construct based on the estimated number of able bodied individuals over age 16 who might be brought into the state's work force or either of its components) because this aspect of the total Alaska population is not included in the current total civilian population status reporting resources.

In the 1975 report, tables, maps, charts, and graphs appeared in a single section. These references appear within context of this report in an effort to enhance or expedite communication of content. Some maps appear in both reports, but few if any of the other visual aids appear in both volumes. The baseline proportional data for the Alaska Native population extracted from the 1970 Census was established through repeating the procedure described in Chapter II of the earlier study and reported on Tables 1 through 10, pages 56 through 81 (4). Only the summary of this procedure appears in the tables included in this updated research on the same topic.

CHAPTER III

GENERAL DISCUSSION

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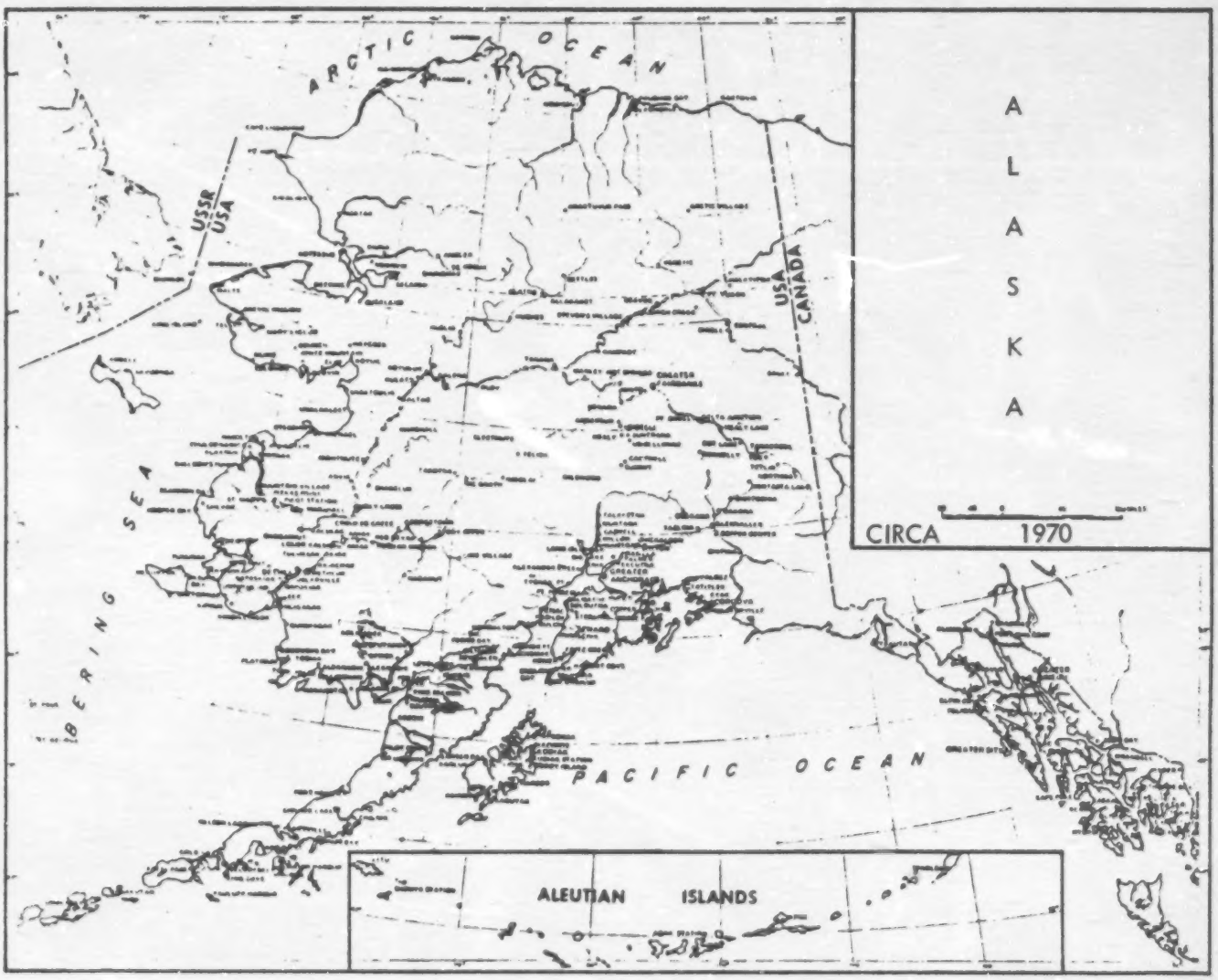
MAP 1
STATE OF ALASKA



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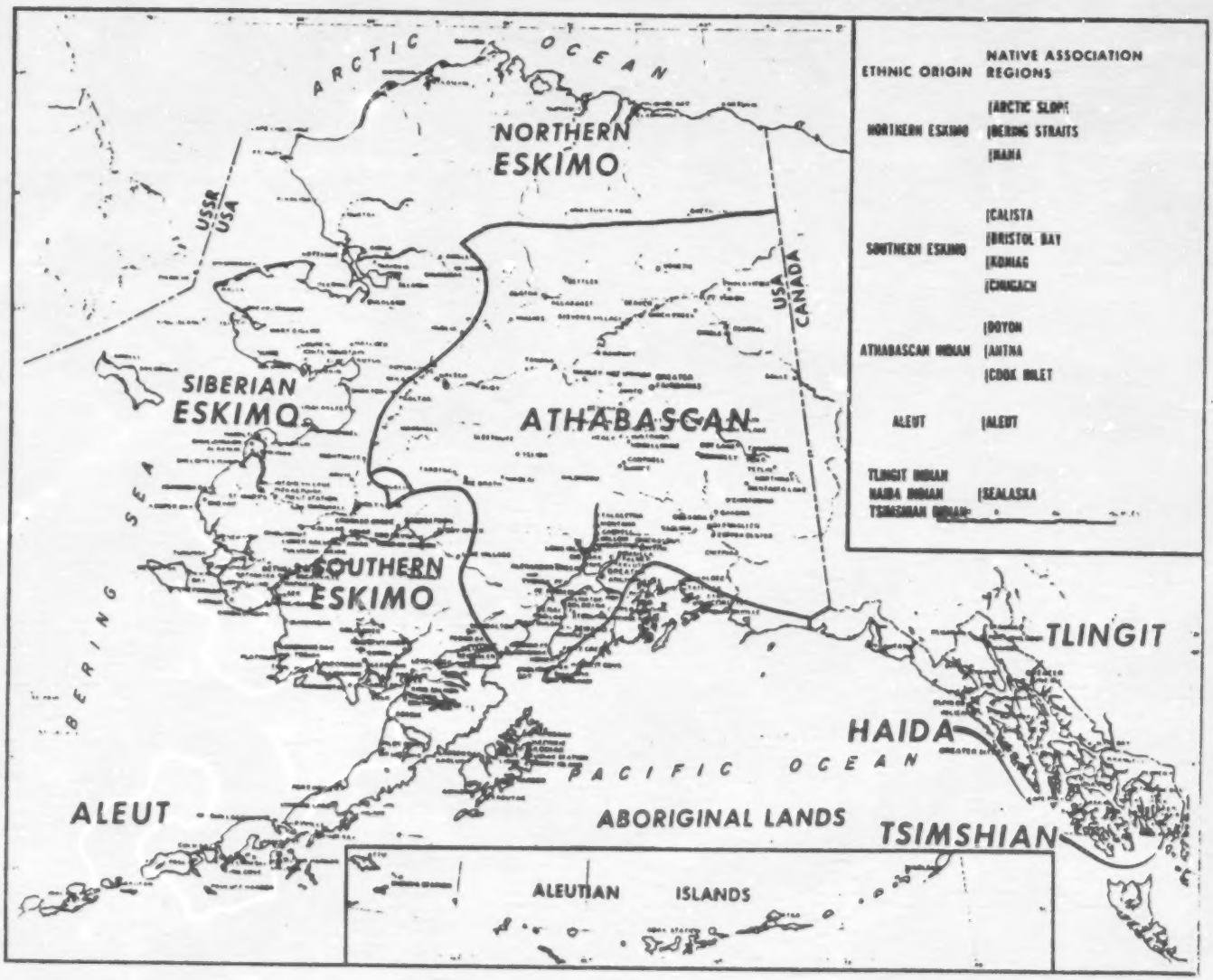
MAP 2
ALASKA NATIVE ETHNIC (TRIBAL) DIVISIONS



MAP 3
CENSUS DISTRICTS CONFORMED TO NATIVE REGIONS

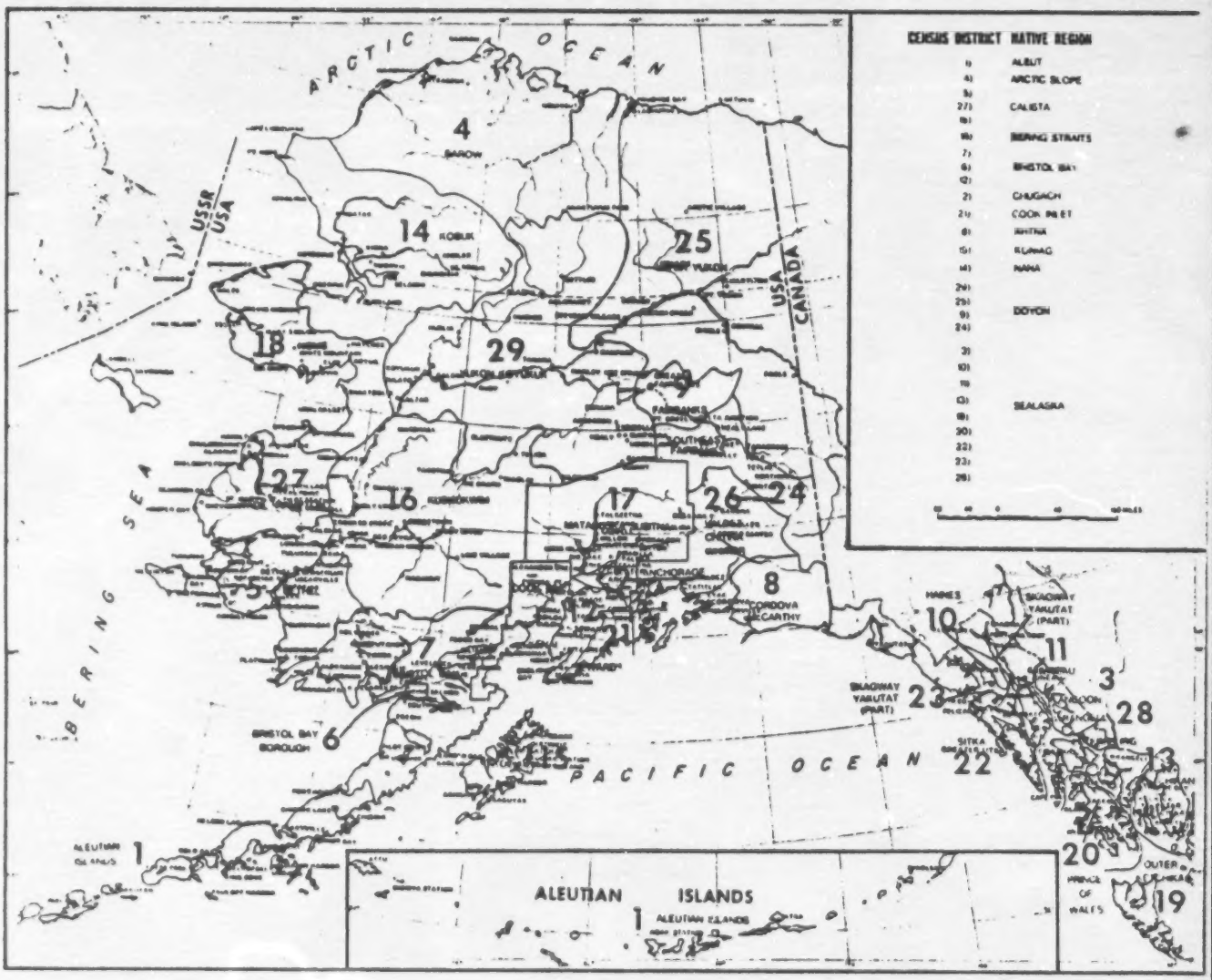


CHART A
ALASKA CENSUS DISTRICTS BY NUMBER

#	DISTRICT
1	Aleutian Islands
2	Anchorage
3	Angoon
4	Barrow
5	Bethel
6	Bristol Bay Borough
7	Bristol Bay
8	Cordova - McCarthy
9	Fairbanks
10	Haines
11	Juneau
12	Kenai - Cook Inlet
13	Ketchikan
14	Kobuk
15	Kodiak
16.	Kuskokwim
17	Matanuska - Susitna
18	Nome
19	Outer Ketchikan
20	Prince of Wales
21	Seward
22	Sitka
23	Skagway - Yakutat
24	Southeast Fairbanks
25	Upper Yukon
26	Valdez - Chitina - Whittier
27	Wade Hampton
28	Wrangell - Petersburg
29	Yukon - Koyukuk

Complied by: Human Environmental Resource Services, Inc.

Source: University of Alaska, ISEGR, Age and Sex Characteristics of Alaska's Population, Mar. 1972, Vol. IX, No. 1 (U.S. Census 1970).

III
GENERAL DISCUSSION

In dealing with Alaska population statistics it is important that information contained within the figures be clearly communicated. For more than 20 years both the general Alaska population and the Alaska Native population have characteristically been young by U.S. standards. In 1970 the national average age was 28.1 as compared to 22.9 for the general Alaska population. Alaska Natives, however, showed an average age of 17.5, with half the total population being approximately aged 18 or less (median age: Eskimos 16.6, Indians 18.5, and Aleuts 19.1 years, respectively), with a generally equal division by sex. Among Native men age 14 and over, almost half were married, while two-thirds of the Native women were married. For the general population, however, nearly two-thirds of the men and three-fourths of the women were married (15, pp. 3-4).

Taken alone these statistics indicate that a substantial number of Native women are married to non-Native men, and that the Alaska Native population is heavily proportional for children, youth, and young adults. The general Alaska population data suggests that young adults, youth, and children figure prominently in the age proportions, as well, but probably is unusually large proportionately for the prime working ages 18 through 45 years with few dependents. Standard authoritative texts on the Alaska population (most particularly reports or studies published through the University of Alaska) frequently emphasize an easily overlooked characteristic

difference between the Native/non-Native populations. The Native population is indigenous besides demonstrating the typical profile of a developing country. That is, there exists a range of ages with family ties from birth to old age. Furthermore, improved health services and social conditions in the Villages are serving to expand to more normal proportions the distribution by age group for those over age 25 years. There are no historical data for estimating the indigenous non-Native population (two or more generations). All statistics and research dealing with the non-Native Alaska population indicates it is almost exclusively composed of persons of prime working age (or military personnel) with dependents--a substantial portion having come to Alaska since 1940 and only a small portion remaining after reaching retirement age. Thus, by standards of "average" or "normal" population distribution by age groups, the non-Native Alaska population differs substantially from the norm ascribed to the national population. There are generally fewer people per capita over age 45, and particularly over age 64, among the non-Native population than is commonly found due to personal or job assignment reasons for in- and out-migration of individuals or families.

Alaska Natives, on the other hand, are born and raised with a sense of ties to their land of origin and the preponderant majority retains these lifetime ties. Present indications are that eventually the Alaska Native population will take on the characteristic age group profile of a "normal" population as the racial groups recover from the inroads of the epidemics extant through the 1950's (primarily tuberculosis),

and adjustment to modernization with accompanying alcohol and drug abuse. There is little reason to expect the non-Native Alaska population to assume equally "normal" evolving age group distribution much before the end of this century. Presently, the end result appears to be a general non-Native Alaska society largely focusing upon employment opportunities for men and women during prime working years with a high annual turnover among these individuals and families. Concurrently, the Alaska Native society is expected to focus upon a permanency for its racial groups and their future generations. These two factors unquestionably affect the labor market and work force in terms of quantity, quality, and racial mix regardless of where or how these might be derived or applied. With greater emphasis historically demonstrated among the adult non-Native population as being placed upon income producing employment among the adults, and the focus of the Native population on retaining cultural identity and permanence through promulgation of Native Village life, the technical problems to be encountered in developing on-going whole population/ Alaska Native population human resource and intrastate manpower estimates or ratios are self-evident but not unsurmountable.

U.S. Census Data

The 1970 Alaska Census is subject to local political and scholarly controversy whenever it is to be applied in fiscal planning associated with state or Native Region policy or in delivery of human service programs. Consensus regarding inadequacies associated with most quantitative Census data ascribed to the Alaska population of eight years ago is generally found among, state, federal, and private specialists

whose professional tasks require focus upon current Alaska population and demography. Considering the logistical and technical problems to be encountered in obtaining accurate census information in Alaska, the shortcomings associated with the 1970 Census are understandable. Alaska's Census enumeration units range from a population of 1 through less than 200,000, with only about 7 civilian communities larger than 2,500, and only 1 city larger than 60,000. Some places omitted in the 1970 Census enumeration were later included in adjusted state totals. The corrected 1970 Census count by sex, age, race, and residence shows an Alaska Native population of 50,654 (4, p. 85). A scholarly demographic study of four Athabascan Villages has since disclosed an additional estimated 190 Alaska Natives who were missed in the Northway enumeration (14, p. 9). This would bring the 1970 Alaska Native population to a total of 50,844 (.004% increase). Since all final estimates derived from treating various official sources of population data appearing here are stated in terms of plus/minus 5% margin, the slight total increase for Northway is not seen to be statistically significant for Native estimates as presented.

Allowing for known omissions in Census enumeration, Tables 3 and 4 serve to demonstrate that the half of the Alaska Native population over age 16 in 1970 was composed of only about 26,000 persons. When this figure is given the attention merited by the reported data, in light of human considerations associated with child rearing and household maintenance requirements, the apparent fact that 41,732 out of

a total of 50,605 (82.5%) of the Alaska Native population live in small, usually isolated rural communities becomes significant in an attempt to estimate in numerical terms the availability of adult Natives for year-round participation in the statewide Alaska work force.

A 1975 Bureau of the Census report based on the 1970 Alaska Census draws attention to certain characteristics of Alaska Native employment that tend to underscore the importance of subsistence harvest labor demands. The report states: a "vast majority of native Alaskans live in rural areas" with "90 percent of Eskimos, 71 percent of Indians, and 78 percent of Aleuts" living in rural Villages. The report further states that the rural Native population increased 13% since the 1960 Census, while Natives reported as residing in urban areas had increased 63% in the same period. These figures strongly support opinion to the effect that Native Villages are viable, and can be expected to remain so in the foreseeable future. The reported 23.7% of males and 20.3% of females 16 years old and over who worked 50 to 52 weeks of the year in 1970 can be interpreted to suggest more demand on the total labor force potential than is actually the case (15, pp. 3-4).

The 1970 Alaska Native population was reported to be 83% residing in rural areas; the median age for males 17.3 years and females 17.6 years, with the proportion of total males to females about equal (4, p. 100; 15, p. 2). The 1970 Census data show 16,699 (66%) of Alaska Natives over age 16 worked for some period of time during 1969, with an estimated 7,357 (44.1%) of these workers employed year

round (3,958, or 23.7%, men and 3,399, or 20.3%, women). Similarly firm estimates for the number of Alaska Natives over age 16 unemployed and seeking work on a year-round or part-time basis are not readily available from Census data (15).

Visual observation supported by rural school enrollment figures clearly indicates that children commonly outnumber the adults in most Villages to a substantial degree (27). The 1970 Census narrative notes that 66% of Alaska Natives aged 16 and older were employed for some period in 1969, but only 45% of that number (approximately 7,900) were working in the early spring when the Census was taken. Of interest is that in 1970, of all the Native men who reported being employed for some period in 1969, nearly one-fourth worked year round, while of the total civilian male workers of the same age group, a little over half were employed year round.

Considering that among the total workers, as well as Alaska Native workers, a certain portion of the males aged 16 and over are acquiring education or training or for other reasons are not a part of the year-round labor market, and the fact that work force utilization is reported for age 16 and over rather than 18 and over, becomes pertinent. Additionally, Census data do not take into account the worker time that must be expended by rural residents who depend upon subsistence harvest as a cornerstone for total household livelihood. In particular, the Alaska Census data affording quick visual comparisons of year-round or substantial worker employment by race, sex, and age categories do not communicate the highly disparate labor market demands and manpower needs that play some determining role in male worker availability when Native/non-Native work force comparisons are drawn.

A 1970 Census supplemental report does point out that rural Alaska Native reported employment is highly seasonal and apparently bears a direct relationship to the commercial fishing season (15). What the report does not point out is that peak Native employment also occurs when Village construction, maintenance, longshoring, local transport of annual stocks of goods, and other vital, life-sustaining activities must take place.

The 1970 Census reflects that the percentage of Native women workers over age 16 who held year-round jobs was approximately the same as for non-Native women (20% : 22%). When all due allowance is made for education and job competency disparities between the dominant population and the Alaska Natives of comparable ages, the apparent fact that Native and non-Native women are fully employed more equally than men can suggest there may be more elementary causes for the nearly double difference in year-round employment between Native and non-Native males. Presently, much information is still lacking to describe how much Alaska Native male labor is actually required (or perceived to be required) to sustain the households and community needs in Native Villages. Secondly, of the labor needed, adequate information is not yet available to estimate the periods of the year and lengths of time that given numbers of Native men and women can be absent from Village households in order to be employed elsewhere.

It is pertinent to note that the 1970 Census reports that employed Eskimos were about equally distributed between white-collar, blue-collar, and service occupations. Indians were 39% employed in blue-collar jobs, and Aleuts 54% in blue-collar jobs (with the lowest proportion in service occupations). All of these percentages tend to reflect a pattern for 1969-1970 Alaska Native work force utilization in keeping with known characteristics of the urban/rural Alaska labor market. When this is associated with the kinds of saleable skills or occupational preferences which Alaska Native workers are generally known to bring in response to local and statewide employment demands, the major occupation group percentages are in keeping with the reported prevailing 1970 education, occupational information, and life experience observations of the majority of Eskimos, Alaska Indians, and Aleuts.

Variances in officially reported population data in 1970 and the immediate subsequent years generated by the BIA, Alaska Area Native Health Service (AANHS), and agencies of the State of Alaska, brought about four administrative decisions pertinent to the baseline data applied here.

- AANHS has developed and applied a statistical factor to the Area population reporting procedures believed to more accurately depict reality than previous procedures adjusted to 1970 Census data.
- The Juneau Area BIA now reports estimates of Alaska Agency population and labor force for a time period that generally conforms to Census data gathered and reported in 1970--the early spring months.

- The Alaska Department of Labor is designated the primary assignment for collecting and developing internal population and work force data for the state (with the exception of school/vocational training enrollment statistics that are prepared by the Alaska Department of Education). However, due to a need within various departments of State Government for current population figures emphasizing certain detailed characteristics, various departments generally employ a statistical specialist for internal purposes. A continual substantial fluctuation in the state's total population since 1970 is recognized as due to exceptional factors associated with construction of the Alyeska pipeline, dimunition of the military sub-population, and local or sample municipal estimates of population being reported for various purposes. As a result, an Alaska inter-agency committee has been established to work cooperatively with the U.S. Bureau of the Census in an effort to produce an accurate and reliable 1980 Census for Alaska. This group also seeks to foster uniform demographic data collection and reporting practices by state and federal agencies who are required to engage in such activities for internal purposes. The state is therefore presently in the process of aligning Census District boundaries to conform to Native Region divisions to be used in the 1980 Census.

- Because population data plays a major role in state/federal and internal state revenue sharing and economic development planning, a special Bureau of the Census sampling was requested for March 1977 by the Alaska Department of Commerce. A report of this sampling is not expected to be available before August 1978. According to information received from the regional U.S. Census office in Seattle, the sample size is only 1,087 households. According to information received from the Alaska Department of Commerce, this will involve no more than 6,000 individuals. The bulk of the sample will be drawn from the largest centers of population, and no more than two rural Native Villages are expected to be included in the survey. Based upon this kind of data, there is little reason to believe the 1977 Alaska Census sample results will produce a quantity or quality of new information sufficient to significantly affect information being reported here (16).

Alaska Census data for 1970 are used here to extract line by line from computer printout the age groups by sex for Alaska Natives from each of the Census enumeration units listed.* The summary of results appears in Table 6. These data were used to establish baseline estimates for the age group ultimately to be 18 through 64 in 1978 and 1980. The percentages derived on the basis of this computation are subsequently applied to data from the official sources cited to obtain the needed estimates for men and women of appropriate ages within the Alaska Native population. For reasons described in these pages, the U.S. Census data is not believed sufficient at this point in time to be applied similarly for the non-Native population. The 1970 Census racial categories (including military and dependents) reflect 2.9% Negro, 1.0% Other (primarily Asian-Pacific), and 16.8% Alaska Native, with the balance being White. Among the Alaska Natives, the proportions are approximately 13.0% Aleut, 32.1% Indian, and 54.9% Eskimo. It should be noted, however, that the Eskimo population is almost equally divided between Yupik (Southern) and Inupik (Northern) speaking Eskimos--two distinctly different racial sub-groups. Northern Eskimos are associated with the Arctic Slope, Bering Straits, and NANA Regions, while the Southern Eskimos relate to the Bristol Bay and Calista Regions. Although the two groups have much in common, the Northern Eskimo population resides in far fewer Villages within their combined Regions than are found for the two Southern Regions (Map 2).

* For a full description and illustration by Tables of this procedure, refer to pages 19-35 and Tables 1 through 5 in Alaska Native Population and Manpower: 1975 (see Bibliography).

MAP 4
GEOGRAPHIC REGIONS CONFORMED TO NATIVE REGIONS

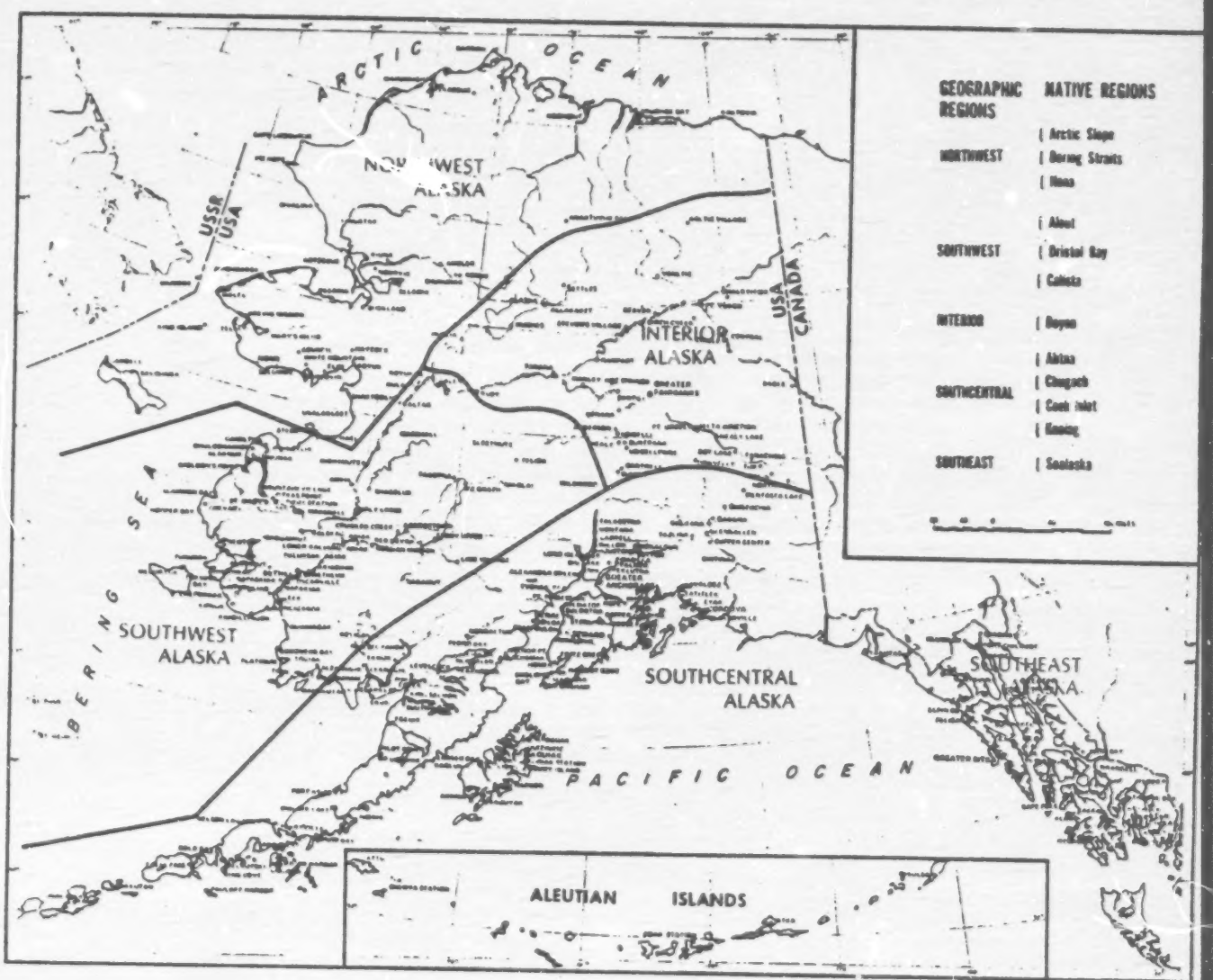


CHART B
NATIVE ASSOCIATION REGIONS[a] CONFORMED TO GEOGRAPHIC REGIONS

NORTHWEST REGION (Geographic Division)

- ARCTIC SLOPE NATIVE ASSOCIATION
- BERING STRAITS NATIVE ASSOCIATION
- NORTHWEST ALASKA NATIVE ASSOCIATION (NANA)

SOUTHWEST REGION (Geographic Division)

- ALEUT LEAGUE
- BRISTOL BAY NATIVE ASSOCIATION
- CALISTA NATIVE ASSOCIATION

INTERIOR REGION (Geographic Division)

- DOYON NATIVE ASSOCIATION

SOUTHCENTRAL REGION (Geographic Division)

- AHTNA NATIVE ASSOCIATION
- CHUGACH NATIVE ASSOCIATION
- COOK INLET NATIVE ASSOCIATION
- KONIAG NATIVE ASSOCIATION

SOUTHEAST REGION (Geographic Division)

- SEALASKA NATIVE ASSOCIATION

a) Conformed to the nearest Census District Boundaries

Compiled by: Human Environmental Resource Services, Inc.

Source: University of Alaska, ISEGR, Alaska's Population & Economy: Regional Growth, Development, and Future Outlook, Vol. 1, 1963, pp. 2-8.

TABLE 2

LAND AREA WITHIN ALASKA NATIVE REGIONS[1]

	Million Acres[a]	Square Miles	Native[2] Communities	Non-Native[2] Communities
NORTHWEST				
Arctic Slope	54.1	84531	6	3
Bering Straits	14.8	23125	16	--
NANA	23.1	36094	11	--
REGION TOTAL	92.0	143750	33	3
SOUTHWEST				
Aleut	7.1	11094	5	3
Bristol Bay	26.0	40625	34	1
Calista	35.8	55937	43	1
REGION TOTAL	68.9	107656	82	5
INTERIOR				
Doyon	128.2	200312	33	21
REGION TOTAL	128.2	200312	33	21
SOUTH CENTRAL				
Ahtna	18.4	28750	14	4
Chugach	9.2	14375	1	8
Cook Inlet	24.0	37500	12	31
Koniag	4.6	7187	11	2
REGION TOTAL	56.2	87812	38	45
SOUTHEAST				
Sealaska	21.8	34062	13	38
REGION TOTAL	21.8	34062	13	38
12 REGION TOTAL	367.1	573592	199	112

a) Does not include Annette Island (Metlakatla Reserve adjacent to Ketchikan--Southeast Region)

Compiled by: Human Environmental Resource Services, Inc.

Sources:

1. Alaska Native Hire on the Trans-Alaska Oil Pipeline Pipeline Project, ISEGR, Vol. XV, No. 1, Feb. 1978, p. 5.
2. Alaska Native Population and Manpower: 1975, pp. 56-68.

TABLE 3

ALASKA NATIVE POPULATION AGE-GROUP AND SEX CHARACTERISTICS
BY NATIVE AND NON-NATIVE COMMUNITIES AND NATIVE REGIONS
ESTIMATE 1970[1]

REGION	Native Population[2] T	% Native T	Ages 10 through 56 T	M	F	% AN T	Ages 54 through 55 T	M	F	% AN T	Ages 8 through 9 T	M	F	% AN T
AHTNA														
Native Communities	190	45.5	128	76	52		4	2	2		7	3	4	
Non-Native Communities	103	22.2	69	34	35		2	2	—		6	3	3	
REGION TOTALS	293	33.2	197	110	87	67.2	6	4	2	2.0	13	6	7	2.0
ALEUT														
Native Communities	1728	86.5	1115	598	517		25	14	11		93	53	40	
Non-Native Communities	64	1.7	49	35	14		2	1	1		1	1	--	
REGION TOTALS	1792	31.4	1164	633	531	65.0	27	15	12	1.5	94	54	40	5.2
ARCTIC SLOPE														
Native Communities	2786	92.0	1740	940	800		32	17	15		168	77	91	
Non-Native Communities	21	7.1	21	21	--		--	--	--		--	--	--	
REGION TOTALS	2807	84.5	1761	961	800	62.7	32	17	15	1.1	168	77	91	6.0
BERING STRAITS														
Native Communities	4435	79.6	2982	1547	1435		76	39	37		271	135	136	
Non-Native Communities	—	—	--	--	--		--	--	--		--	--	--	
REGION TOTALS	4435	79.6	2982	1547	1435	67.2	76	39	37	1.7	271	135	136	6.1

Table 3, p. 2, continued

REGION	Native Population T	% Native T	Ages 10 through 56 T	M	F	% AN T	Ages 54 through 55 T	M	F	% AN T	Ages 8 through 9 T	M	F	% AN T
BRISTOL BAY														
Native Communities	2280	74.5	1442	738	704		29	19	10		149	81	68	
Non-Native Communities	12	5.9	8	4	4		--	--	--		1	--	1	
REGION TOTALS	2292	70.3	1450	742	708	63.3	29	19	10	1.3	150	81	69	6.6
CALISTA														
Native Communities	10353	91.0	6467	3307	3160		112	73	39		662	326	336	
Non-Native Communities	210	96.3	127	64	63		5	1	4		12	2	10	
REGION TOTALS	10563	91.9	6594	3371	3223	62.4	117	74	43	1.1	674	328	346	6.4
CHUGACH														
Native Communities	107	96.4	75	43	32		1	1	--		6	4	2	
Non-Native Communities	609	14.0	425	225	200		11	7	4		26	15	11	
REGION TOTALS	716	16.1	500	268	232	69.8	12	8	4	1.7	32	19	13	4.5
COOK INLET														
Native Communities	862	57.8	577	324	253		14	7	7		46	22	24	
Non-Native Communities	4142	4.2	3073	1643	1430		40	30	10		191	97	94	
REGION TOTALS	5004	5.0	3650	1967	1683	72.9	54	37	17	1.1	237	119	118	4.7
DOYON														
Native Communities	3716	80.0	230	1244	1086		39	21	18		240	125	115	
Non-Native Communities	1659	4.0	1201	741	460		16	10	6		72	40	32	
REGION TOTALS	5375	11.8	3531	1985	1546	65.7	55	31	24	1.0	312	165	147	5.8

Table 3, p. 3, continued

REGION	Native Population[a] T	% Native T	Ages 10 through 56 T	M	F	% AN T	Ages 54 through 55 T	M	F	% AN T	Ages 8 through 9 T	M	F	% AN T
KONIAG														
Native Communities	1190	85.4	751	421	330		13	8	5		62	32	30	
Non-Native Communities	583	8.5	415	248	167		6	4	2		27	14	13	
REGION TOTALS	1773	21.5	1166	669	497	65.8	19	12	7	1.1	89	46	43	5.0
NANA														
Native Communities	3494	89.0	2190	1099	1091		51	25	26		244	120	124	
Non-Native Communities	—	--	—	—	—		--	--	--		--	--	--	
REGION TOTALS	3494	89.0	2190	1099	1091	62.7	51	25	26	1.5	244	120	124	7.0
SEALASKA														
Native Communities	3165	73.4	1992	1053	939		42	24	18		169	76	93	
Non-Native Communities	4800	14.7	3223	1677	1546		93	52	41		239	119	120	
REGION TOTALS	7965	21.6	5215	2730	2485	65.5	135	76	59	1.7	408	195	213	5.1
TOTAL NATIVE COM.	34306	82.9	21789	11390	10399		438	250	188		2117	1054	1063	
TOTAL NON-NATIVE COM.	12203	6.4	8611	4692	3919		175	107	68		575	291	284	
CENSUS DETAIL TOTAL[1]	46509	20.2	30400	16082	14318	65.4	613	357	256	1.3	2692	1345	1347	5.8
CENSUS DETAIL NOT AVAIL.[2]	4145[b,c]	—	2711	1434	1276	--	54	31	23	--	78	39	39	--
STATE TOTAL	50654	16.7	33111	17516	15594	65.4	667	388	279	1.3	2770	1384	1386	5.8

a) Figures rounded to nearest whole.
b) Distributed on the basis of Alaska Native population percentages reflected in State Totals.
c) Equals 8.2% of total Alaska Native population enumerated.

Compiled by: Human Environmental Resource Services, Inc.

Sources:
1) University of Alaska, ISEGR, Age and Race by Sex Characteristics of Alaska's Population, Sept. 1973, Vol. X, No. 2.
2) University of Alaska, ISEGR, Age and Sex Characteristics of Alaska's Population, March 1972, Vol. IX.

TABLE 4

ALASKA NATIVE POPULATION BASELINE AGE GROUPS
ESTIMATE 1970

	AN T	Ages 10 through 56 T	M	F	%	Ages 54 through 55 T	M	F	%	Ages 9 through 10 T	M	F	%
NORTHWEST													
Arctic Slope	2807	1761	961	800	62.7	32	17	15	1.1	168	77	91	6.0
NANA	3494	2190	1099	1091	62.7	51	25	26	1.5	244	120	124	7.0
Bering Straits	4435	2982	1547	1435	67.2	76	39	37	1.7	271	135	136	6.1
REGION TOTAL	10736	6933	3607	3326	64.6	159	81	78	1.5	683	332	351	6.4
SOUTHWEST													
Aleut	1792	1164	633	531	65.0	27	15	12	1.5	94	54	40	5.2
Bristol Bay	2292	1450	742	708	63.3	29	19	10	1.3	150	81	69	6.6
Calista	10563	6594	3371	3223	62.4	117	74	43	1.1	674	328	346	6.4
REGION TOTAL	14647	9208	4746	4462	62.9	173	108	65	1.2	918	463	455	6.3
INTERIOR													
Doyon	5375	3531	1985	1546	65.7	55	31	24	1.0	312	165	147	5.8
REGION TOTAL	5375	3531	1985	1546	65.7	55	31	24	1.0	312	165	147	5.8
SOUTH CENTRAL													
Ahtna	293	197	110	87	67.2	6	4	2	2.0	13	6	7	2.0
Chugach	716	500	268	232	69.8	12	8	4	1.7	32	19	13	4.5
Cook Inlet	5004	3650	1967	1683	72.9	54	37	17	1.1	237	119	118	4.7
Koniag	1773	1166	669	497	65.8	19	12	7	1.1	89	46	43	5.0
REGION TOTAL	7786	5513	3014	2499	70.8	91	61	30	1.2	371	190	181	4.8
SOUTHEAST													
Sealaska	7695	5212	2730	2485	65.5	135	76	39	1.7	408	195	213	5.1
REGION TOTAL	7695	5212	2730	2485	65.5	135	76	39	1.7	408	195	213	5.1
CENSUS DETAIL TOTAL[1]	46509	30400	16082	14318	65.4	613	357	256	1.3	2692	1345	1347	5.8
CENSUS DETAIL NOT AVAILABLE[2]	4145	2711	1434	1276	—	54	31	23	--	78	39	39	--
STATE TOTAL[a]	50654	33111	17516	15594	65.4	667	388	279	1.3	2770	1384	1386	5.8

a) Figures rounded to nearest whole. Distributed on the basis of Alaska Native population percentages reflected in State Totals

Compiled by: Human Environmental Resource Services, Inc.

Sources:
1. University of Alaska, ISEGR, Age and Race by Sex Characteristics of Alaska's Population, Sept. 1973, Vol. X, No. 2.
2. University of Alaska, ISEGR, Age and Sex Characteristics of Alaska's Population, March 1972, Vol. IX.

TABLE 5

ALASKA NATIVE ETHNIC GROUP MEDIAN AGE
1970 ESTIMATES[a]

	Total	Male	Female	Mean	No. Over 16
Eskimo	28233	16.3	16.9	16.6	14116
Indian	16080	18.5	18.5	18.5	8040
Aleut	6292	19.2	18.9	19.1	3146
TOTAL	50605	18.0	18.1	18.1	25302

a) Rounded

Compiled by: Human Environmental Resource Services, Inc.

Source: U.S. Bureau of the Census, Supplemental Report Native Population of Alaska by Race, 1970, 1975.

TABLE 6

ALASKA NATIVE POPULATION BASELINE
AGE GROUPS FOR 1978 AND 1980 PROJECTIONS

Region	1970[1] AN T	Age 10-56 T	% M	% F	Balance of AN T	.0072%[3] @ Annual Death Rate	1978, 18 Thru 64	T	% M	% F	.0072%[a] @Annual Death Rate	1980, 18 Thru 64
NORTHWEST												
Arctic Slope	2807	1761	54.6	45.4	37.3	101	1660	1897	53.8	46.2	137	1760
NANA	3494	2190	50.2	49.8	37.3	126	2064	2358	50.6	49.4	170	2188
Bering Straits	4435	2982	51.9	48.1	32.8	172	2810	3177	51.7	48.3	230	2948
REGION TOTALS	10763	6933	52.0	48.0	35.4	399	6534	7432	51.9	48.1	535	6896
SOUTHWEST												
Aleut	1792	1164	54.4	45.6	35.0	67	1097	1231	54.6	45.4	89	1142
Bristol Bay	2292	1450	51.2	48.8	36.7	84	1366	1571	51.2	48.8	113	1458
Calista	10563	6594	51.1	48.9	37.6	380	6214	7151	50.7	49.3	515	6636
REGION TOTALS	14647	9208	51.5	48.5	37.1	531	8677	9953	51.3	48.7	717	9236
INTERIOR												
Doyon	5375	3531	562	43.8	34.3	203	3328	3788	55.9	44.1	273	3515
REGION TOTALS	5375	3531	562	43.8	34.3	203	3328	3788	55.9	44.1	273	3515
SOUTH CENTRAL												
Ahtna	2393	197	55.8	44.2	32.8	11	186	204	54.9	45.1	15	189
Chugach	716	500	53.6	46.4	30.2	29	471	520	53.6	46.4	37	483
Cook Inlet	5004	3650	53.9	46.1	27.1	210	3440	3833	53.5	46.5	276	3557
Koniag	1773	1166	57.4	42.6	34.2	67	1099	1236	56.0	44.0	89	1147
REGION TOTALS	7786	5513	54.7	45.6	29.2	317	5196	5793	54.3	45.7	417	5376
SOUTHEAST												
Sealaska	7965	5215	52.3	47.7	34.5	300	4915	5488	51.9	48.1	395	5093
REGION TOTALS	7965	5215	52.3	47.7	34.5	300	4915	5488	51.9	48.1	395	5093
CENSUS DETAIL TOTAL	46509	30400	52.9	47.1	34.6	1750	28650	32454	52.6	47.4	2337	30116
CENSUS DETAIL NOT AVAIL.	4145	2711	--	--	--	156	2555	2733	--	--	197	2536
STATE TOTAL	50654	33111	52.9	47.1	34.6	1906	31205	35187	52.6	47.4	2534	32652

a) Projected -- based on AANHS 1968-1975 annual mean.

Compiled by: Human Environmental Resource Services, Inc.

Sources:
1. University of Alaska, ISEGR, Age and Race by Sex Characteristics of Alaska's Population, Sept. 1973, Vol. X, No. 2
2. University of Alaska, ISEGR, Age and Sex Characteristics of Alaska's Population, March 1972, Vol. IX.
3. Alaska Area Native Health Services, Office of Systems Development, Internal Reports through May 1978.

MAP 5
GEOGRAPHIC REGIONS BY JUNEAU AREA BIA SERVICE AGENCIES

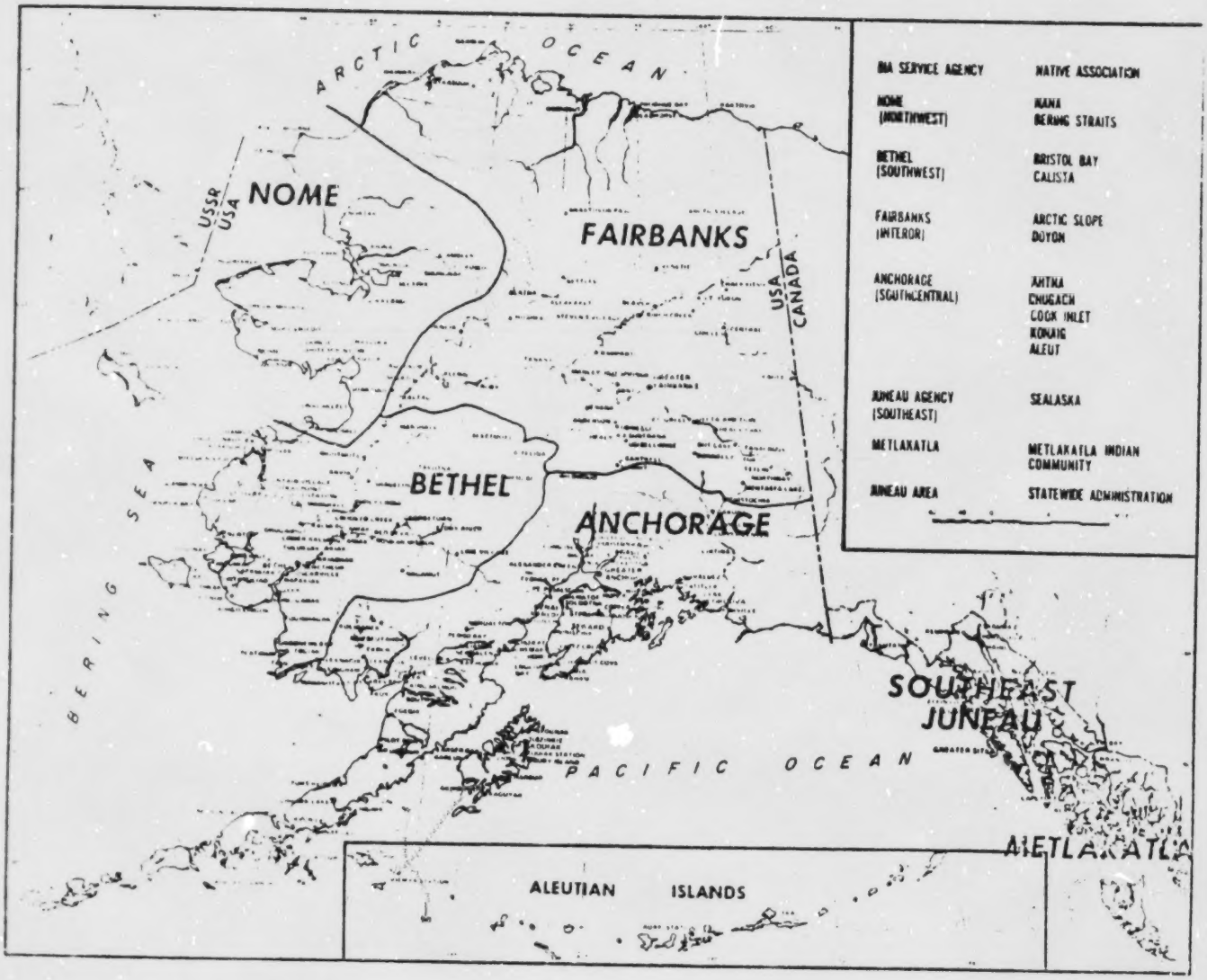


CHART C
GEOGRAPHIC REGIONS BY JUNEAU AREA BIA SERVICE AGENCIES

GEOGRAPHIC REGION[a]	SERVICE AGENCY	NATIVE REGION
Northwest	Nome	NANA Bering Straits
Southwest	Bethel	Bristol Bay Calista
Interior	Fairbanks	Arctic Slope Doyon
Southcentral	Anchorage	Ahtna Chugach Cook Inlet Koniag Aleut
Southcentral	Juneau (includes Metlakatla)	Sealaska

a) Bureau of Indian Affairs Agencies are grouped to conform as closely as possible to the five geographic regions used herein.

Compiled by: Human Environmental Resource Services, Inc.

Source: U.S. Department of the Interior, Bureau of Indian Affairs, Juneau Area.

Bureau of Indian Affairs Data:

Two pertinent types of data are available from Juneau Area BIA statistical reports. The Report of Labor Force is available annually under an early spring reporting date for the years 1977 through 1978 and provides a means to update similar information on hand for the years 1973 through 1975 (4, p. 110). Juneau Area Activities 1975-76, the most recent BIA annual report, provides particularly useful information regarding share distribution of state revenue to Alaska Villages. Municipal classification for communities with Native populations and figures associated with state revenue sharing can enhance Village fiscal planning and may hold implications for some foreseeable labor demands on local Native Villages (13, pp. 6-13).

BIA data are reported through five Agency offices serving the Juneau Area as administrative subdivisions. With the exception of the Village of Pt. Hope, and some communities along the main highway between Anchorage and Fairbanks, the BIA Agency boundaries conform conveniently with individual or grouped Alaska Native Region geographic divisions.

The most current Native Enrollment figures for persons, living and dead, who are eligible for benefits under the Settlement Act number 77,964. Enrollment beneficiaries are recorded by place of origin as of December 1971, with 73,967 being enrolled to the 12 in-state Regions and 3,997 who are listed with the non-resident 13th region membership.

The figures in Tables 7 and 8 are provided as an illustration of how Enrollment data can easily be misunderstood when applied for purposes other than the

primary one for which it was developed. The figures in Table 7 are reported by the Enrollment Office as the most current available in May 1978. Settlement Act economic benefits accruing to individuals, Villages, and Regions are based upon Enrollment of living Alaska Natives as of December 18, 1971 (and terms associated with re-opening the Rolls under PL 94-204 for previously unenrolled persons alive on that date). Shares in Region and Village corporations are automatically issued to all verified Native enrollees and are inherited by their survivors. Administration of Native affairs within Native Regions is founded on corporate structure procedure, although some Villages within geographic Native Regions did exercise an option to regain a status similar to Reserve classification and are, therefore, labeled "reserves" for routine Alaska BIA administrative practices. Alaska Native communities, however, are governed by state laws and operate under one of the various types of local government recognized by the state (Table 9).

Application of enrollment figures in an attempt to estimate the actual number of Alaska Natives within Alaska by place of residence (by age and sex) is generally inappropriate except as a broad indication of the place individuals refer to as "home." Some verification of estimates for the under age 16 place of residence may be obtained for specific comparable reporting dates by applying school daily maintenance reports. The April 19, 1976, BIA computer printout listing enrolled living resident Alaska Natives provides only acceptable estimates for Native persons presumed then to be

aged 5 and older; the number residing within the 12 Alaska Native Regions (unless temporarily out of state), showing whether they report actually living in the Village identified as place of origin; and the total number of males and females claiming Alaska residency who are aged 18 and over in 1976.

Analysis of Alaska Native Enrollment data supports a reasonable conclusion that an acceptable estimate for the 1976 Native population segment aged 18 and older actually present in the state in the early spring of 1976 is 28,530 (34,856 less approximately 7,000 temporarily out of state attending college or receiving technical training) plus 674 Tsimshian Indians of the same age group (5,422). It is recognized the estimate is probably high because there is no means readily available from comparable data to determine how many of the estimated 7,000 students are 16 and older. A plus/minus factor, with the minus more appropriately applied, should produce a more realistic total estimate of the within state (27,103 $\pm$ .05%) Alaska Native adults over age 18 in 1976 when applying Enrollment data.

TABLE 7

ENROLLED ALASKA NATIVES AGED 5 AND OLDER BY REGION
APRIL 1976[a]

Region	Residing as Enrolled	Residing Elsewhere	Resident Total	18 And Older Age Group		
				F	M	T
Aleut	1555	183	1738	625	484	1109
Arctic Slope	2254	481	2735	879	719	1598
Calista	10319	1383	11702	3462	3087	6549
Bering Straits	3978	663	4641	1530	1340	2870
Bristol Bay	3151	463	3614	1144	988	2132
Chugach	632	565	1197	411	390	771
Cook Inlet	1750	7280	9030	2436	2942	5378
Ahtna	253	301	554	182	162	344
Koniag	974	1272	2246	784	641	1425
NANA	3481	178	3659	1089	1006	2095
Doyon	4693	3150	7843	2389	2351	4740
Sealaska	7593	2084	9677	2971	2873	5844
TOTALS	40633	18004	58637	17902	16954	34856

a) Does not include Tsimshian Indians of Annette Island Reserve

Compiled by: Human Environmental Resource Services, Inc.

Source: PL 92-203, Enrollees by Geographic Places for 2c Alaska Native Studies from the Alaska Native Rolls, computer printout 4/19/76, courtesy of Bureau of Indian Affairs Enrollment Office, Anchorage, 1978.

TABLE 8

ALASKA NATIVE ENROLLMENT UNDER PL 92-203

Region	Total
Ahtna	1059
Aleut	3062
Arctic Slope	3797
Bering Straits	7422
Bristol Bay	5280
Calista	13248
Chugach	1874
Cook Inlet	5994
Doyon	9233
Koniag	3120
NANA	4763
Sealaska	15115
RESIDENT TOTAL *	73967
13th Region **	3997
TOTAL	77964

Compiled by: Human Environmental Resource Services, Inc.

Source: Alaska Native Enrollment Office, Bureau of Indian Affairs, from computer printouts dated 9/9/76* and 3/2/78**.

TABLE 9

ALASKA POPULATION: NUMBER OF COMMUNITIES AND TYPE OF LOCAL GOVERNMENT BY BIA AGENCY DIVISIONS ESTIMATES 1980

BIA Agency	Civilian Population[a]	No. of Communities[b]	Type of State Municipal Government			
			1st Class	2nd Class	Village	Home Rule
Anchorage	209010	94	5	16	66	7
Bethel	14442	55	0	29	26	0
Fairbanks	39563	50	3	19	26	2
Nome	11054	35	2	25	8	0
Southeast	43290	19	9	3	2	5
TOTAL	316399	253	19	92	128	14

a) FY 76 State Revenue Sharing or BIA Agency estimates.

b) Represents a total of 296 communities--metropolitan subdivisions are included in number shown for a single place of population concentration.

c) 2nd Class, Home Rule, and Village Municipal Government classifications are state local government classifications and do not conform in numerical content to Native Village status as assigned by the U.S. Dept. of Interior for Settlement Act purposes.

Compiled by: Human Environmental Resource Services, Inc.

Source: Juneau Area Activities 1975-76, Bureau of Indian Affairs, Juneau Area Annual Report, 1977, pp. 6-12.

TABLE 10

RESIDENT ALASKA NATIVE RACES AND CULTURAL DIVISIONS BY NATIVE ASSOCIATION PARTICIPATION

Race	Cultural Division	Native Association
Eskimo	Inupiat	Bering Straits[a] Northwest Alaska Arctic Slope
	Yupec	[St. Lawrence Is. (Reserve)]
	Yupic	Calista Chugach Konaig Bristol Bay
Aleut	Aleut	Aleut League
Indian	Athabascan	Doyon[b] Ahtna
	Southeast Tlingit Tlingit	Sealaska[c]
	Haida	
	Tsimshian	[Metlakatal (Reserve)]
All of Above	---	Cook Inlet

a) Includes St. Lawrence Is. and Elim Reserves.
b) Includes Tetlin, Arctic Village, and Venetie Reserves
c) Includes Annette Island Reserve

Compiled by: Human Environmental Resource Services, Inc.

Source: Standard Alaska Native demongraphic references.

Alaska Area Native Health Service Data:

AANHS data is reported by seven service units (regional hospital facilities) from before the 1970 Census through 1974. In 1975 the Norton Sound unit was added through dividing the region formerly serviced by Kotzebue. Population and other data are now reported through eight subdivisions. In 1978 a significant increase appears for the total Alaska Native population reported on AANHS data due to introduction of a statistical correction factor to adjust data more in keeping with recognized reality. A total increase of 3,115 persons was noted in 1978, but is recognized by AANHS to be a statistical, not actual, increase. Total and service unit population estimates from 1978 can be expected to more clearly depict actual numbers than those in the preceding five years. According to AANHS and BIA statistical specialists, percentages for age groups as reported for Alaska Natives on the 1970 Census are believed a reasonable and appropriate basis for deriving 1970 age group extrapolations. Other statisticians and officials in state and federal agencies in Alaska who must routinely deal with Alaska Native demographic data share this opinion (17).

Crude death rates for Alaska Natives reported by Native Region are available from the years 1968 through 1972. According to information received in May 1978 from the Director of Office of Systems Development (AANHS data reporting division), death rate data reports are currently available only for the total Native population

in Alaska 1972 through 1975. The five-year mean death rate for the total Alaska Native population by Region 1968 through 1972 is shown to be 7.6 per thousand for persons aged 1 year and older (4, p. 88). Whole population death rate 1968 through 1975 provides a seven-year mean of 7.2 deaths per thousand, not including infants (4 and 25). For the years 1968 through 1972 the mean number of deaths per thousand by Native Region range from 10.1 to 4.8 (4, p. 88). Due to lack of similar detail for the years following, it is presumed more appropriate to apply the seven-year whole population mean crude death rate in deriving estimates for adult age groups for 1978 and 1980 using 1970 Census baseline data. The results may underestimate for some Regions and overestimate in others, but the derived estimates are in keeping with known patterns for Region Native population age groups. According to AANHS, age group proportional percentages within the Alaska Native population, as reported in the 1970 Census and extrapolated for 1975, remain essentially the same in 1978 and through 1980 (16). AANHS estimate for total Alaska Native population in 1978 is 65,251 with a 1980 projection of 71,116. When compared with the extrapolations derived on the basis of the 1970 Census, the patterns of age group distribution reflected on Tables 6 and 7 are consistent with known similar historical and contemporary characteristics of the Native population for the years through 1978.

Total Alaska Native population estimates 1970 - 1980 appear on Table 11. Comparison of estimates for the Alaska Native 18 through 64 age group in 1978 and 1980, as derived, appear on Table 12. It is noted that AANHS generated data is 4% (1,262

persons) higher than extrapolated 1970 Census data for the 18 through 64 age group in 1978. It is noted, also, that the 1980 AANHS projection reflects a 7.2% difference for this same age group from 1970 Census extrapolation shown on the Tables. Due to the initial recognized deficiencies in accuracy for enumeration of Alaska Natives by the 1970 Census--generally regarded as low by some 8 to 10% in detailed reporting--this outcome is reasonable and expected (standard Alaska demographic references). The 1978 maximum estimate of 32,467 Alaska Natives between the ages of 18 through 64 derived from AANHS data is reasonable and realistic, falling within the 5% plus/minus factor recommended for applying summary data from all sources cited.

The AANHS is unquestionably in the best position to make projections for the Alaska Native population through application of birth and mortality rates. Between 1970 and 1980 a minimum of 25% of the Native population will have reached child-bearing age who were prepubescent in 1970. Concurrently, Alaska Native crude death rates have shown a decline. It would thus appear that the 1980 derived estimate, based on AANHS total Native population projection, is probably inflated for the 18 through 64 age group through the direct application of the 1978 percentage. Presently, however, sufficient data are not available to suggest a reliable correction factor to lower the age group projection suggested by AANHS data in keeping with a reasonable probability that reducing the maximum estimated 1980 Alaska Native 18 through 64 age group by 3 to 4% is more likely to depict ultimate reality. This would place the figure at about 33833--a numerically more consistent incline comparing favorably with that shown historically by other data sources.

MAP 6
ALASKA AREA NATIVE HEALTH SERVICE UNITS
CONFORMED TO NATIVE REGIONS

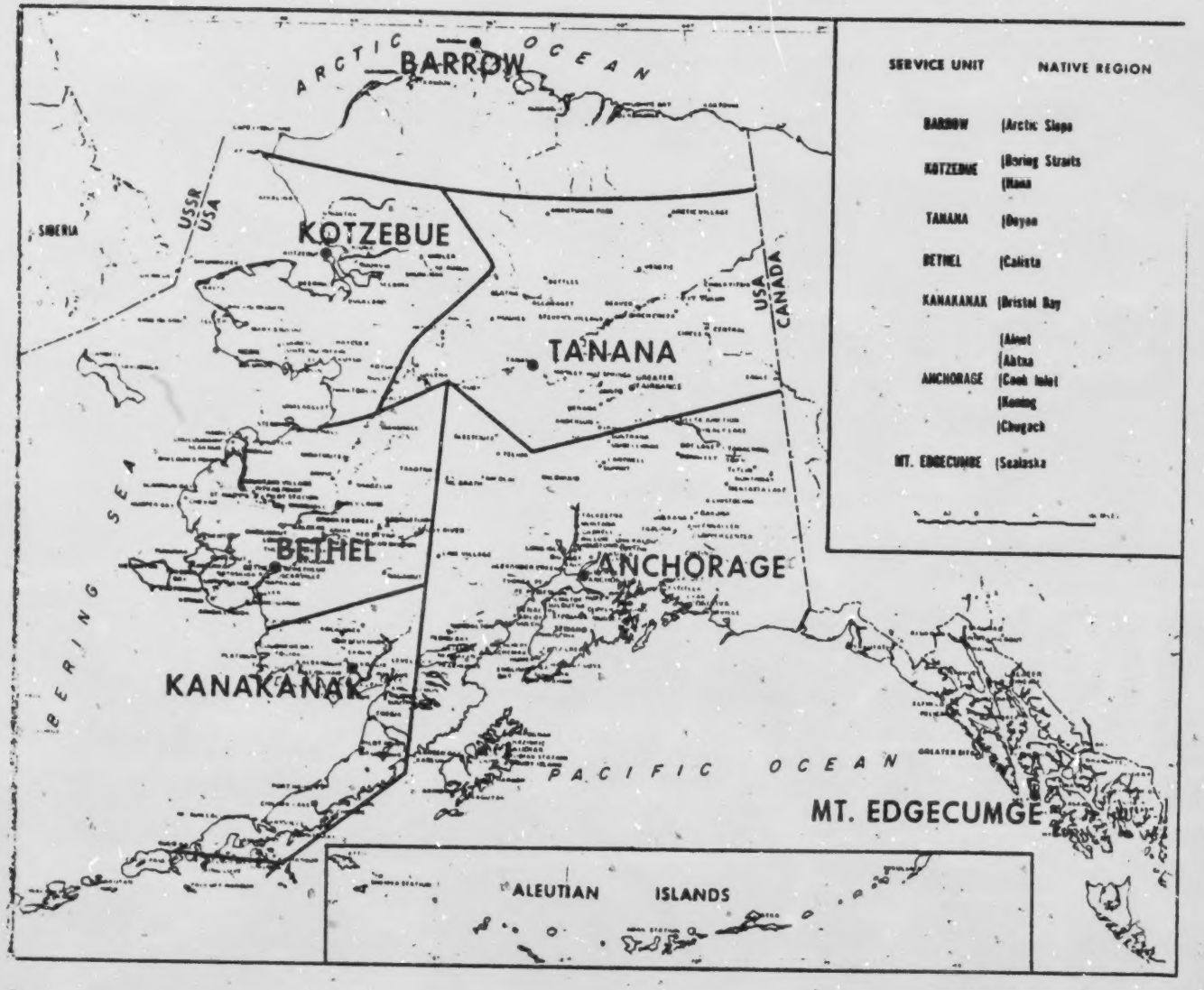


CHART D
ALASKA AREA NATIVE HEALTH SERVICE UNITS
CONFORMED TO NATIVE REGIONS

BARROW	Arctic Slope
KOTZEBUE	Bering Straits NANA
TANANA	Doyon
BETHEL	Calista
KANAKANAK	Bristol Bay
ANCHORAGE	Aleut Ahtna Cook Inlet Koniag Chugach
Mt. EDGECUMBE	Sealaska

Compiled by: Human Environmental Resource Services, Inc.

Course: Alaska Area Native Health Service (USPHS)

TABLE 11

ALASKA NATIVE POPULATION BY ALASKA
AREA NATIVE HEALTH SERVICE UNITS
ESTIMATES 1970 - 1980

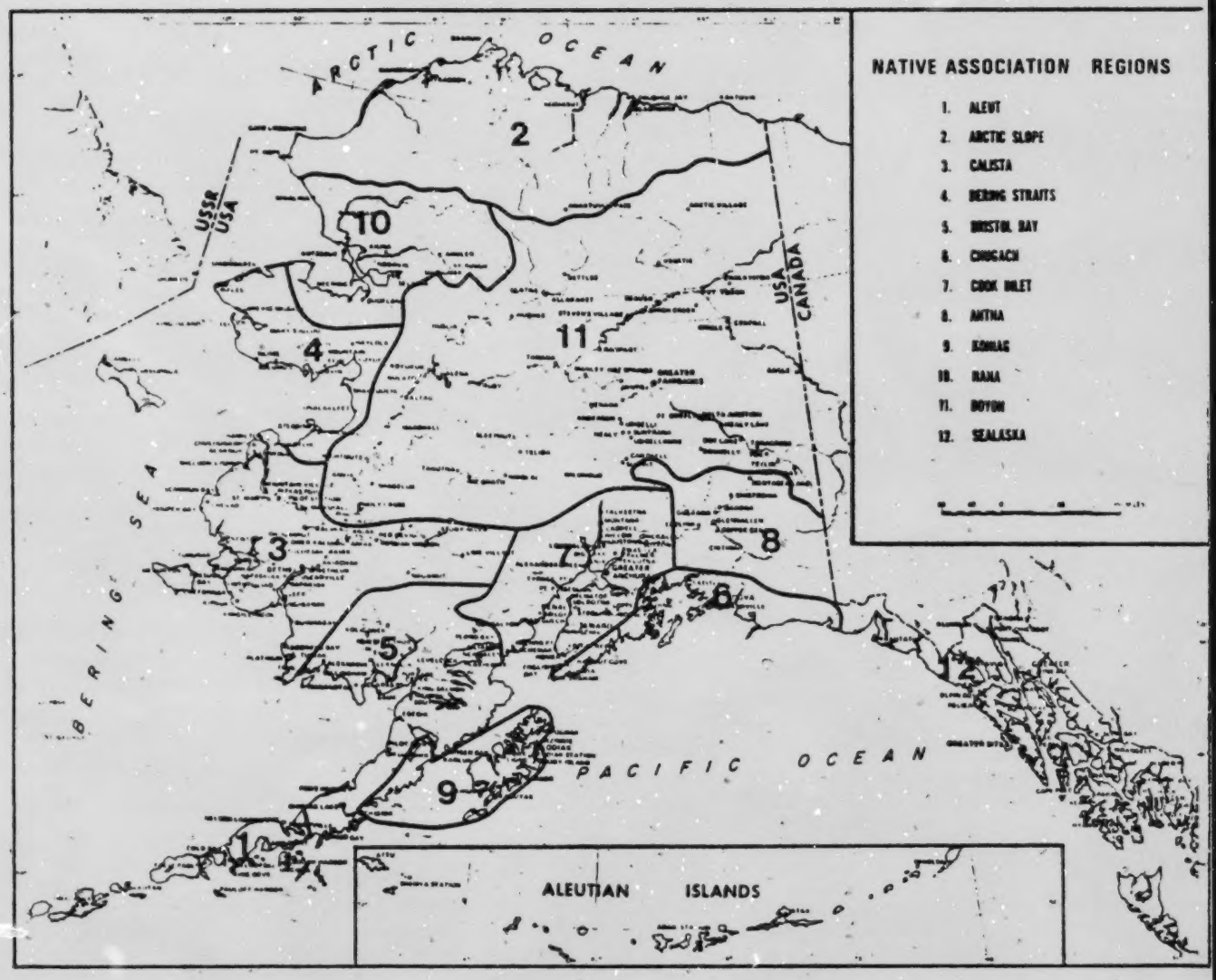
REGION	1970	1975	1978[a]	1980[b]
NORTHWEST				
Barrow	2052	2217	3431	4021
Kotzebue	8414	9089	4484	4645
Morton Sound	--	--	5349	5854
REGION TOTAL	10466	11306	13264	14520
SOUTHWEST				
Bethel	10877	11748	14794	16137
Kanakanak	3488	3713	3850	4245
REGION TOTAL	14365	15461	18644	20382
INTERIOR				
Tanana	6105	6595	6291	6679
REGION TOTAL	6105	6959	6291	6679
SOUTH CENTRAL				
Anchorage	10672	11527	15990	17415
REGION TOTAL	10672	11527	15990	17415
SOUTHEAST				
Mt. Edgecomb	9748	10530	11062	12120
REGION TOTAL	9748	10530	11062	12120
1978 ADJUSTMENT[a]			606	
TOTAL	51336	55419	65[illegible]57	71116

a) Increase reflects AANHS statistical correction factor.
b) Projected by AANHS.

Compiled by: Human Environmental Resource Services, Inc.

Source: Alaska Area Native Health Service, Office of Systems Development, Internal Reports 1970 through May 1978.

MAP 7
NATIVE REGIONS



General Population and Work Force Data:

A number of official state sources for general population and work force data, information, and projections were a part of the preparatory review of resources to be applied in developing this report. Most notably, publications generated by the Alaska Departments of Labor, Education, Commerce and Economic Development, and Community and Regional Affairs were given careful consideration (see Bibliography). After comparing these various sources, it became evident that for the stated purposes of this investigation, much of the useful statistical data regarding total population and work force projections supplied or generated by the various departments as needed here is to be found in publications supplied by the Alaska Department of Commerce, Division of Economic Enterprise (25). Since the April 1978 quarterly report The Alaska Economic Information & Reporting System (AEIRS) prepared by Principal Economist, Dr. D. M. Reaume, serves as the single source for Alaska population and work force projects through 1980 being applied here, certain assumptions subserving the study appear below (25, pp. 3-4):

- No employment generating activity on the primary gasline construction is included in the forecasts.
- The anticipated capital move generated construction activity is not included in the forecast since it is believed the impact will not be substantially felt until after 1980.
- The forecast makes no provision for construction of a major oil refinery or oil feedstock petrochemical plant before 1980, but does not rule out construction of a smaller fuels refinery aimed at satisfying in-state needs.

- Full-scale development of the bottom fish industry is not forecast before 1980, but the forecast does include construction of one new bottom fisn processing plant, an anticipated steady increase in statewide salmon harvest and the attendant enlarging employment demand.

- Assumptions dealing with utilization of the Alaska Permanent Fund and new developments in agriculture are that these will have little total impact in terms of state population and work force growth before 1980.

With application of the precautions listed above, in light of what is presently known or believed about Alaska's demographic trends and patterns of work force demand and utilization, the strength of the rationale subserving the procedure to obtain population and work force forecasts through 1980 by AEIRS is self-evident.

Specific work force utilization data and information are available through quarterly and annual reports prepared by the Alaska Department of Labor. Important for purposes here is the Labor Market Information for Affirmative Action Programs currently compiled periodically in four sections: "Anchorage," "Fairbanks," "Kenai-Cook Inlet, Kodiak, Juneau, Ketchikan, and Sitka," and "State of Alaska." This document states information in terms of data extrapolated from the 1970 Census. Racial or minority segments of the work force are extrapolated in part by applying the percentage ratios as of 1970 to the current year totals being reported. Two qualifications appearing in the most recent (1976) Alaska labor market information booklets are noted below (29):

> "The primary source of this data is the 1970 Census. The civilian labor force is the annual average for 1975; however, the racial distribution is based on that described by the 1970 Census. No attempt was made to update the minority

status of the population due to the effects of in-migration. It is felt that the rate of change in the racial mix is no longer similar to that present between 1960 and 1970, and that . . . the distribution present in 1970 is as valid a basis for estimating the racial mix now as any other method. (29, p. 2)

[In referring to Table 4 listing occupation of job applications at local offices of the Alaska State Employment Service by Sex and Minority status] "Note: The figures shown here include an undetermined amount of duplication because many applicants are listed under more than one occupational group." (29, p. 2) (Bracketed material added for clarity)

"Historically, the public sector has dominated the State's economy. In 1960 the public sector generated almost half of Alaska's total labor and proprietor's income (49%). . . . [in 1976] the government share in Alaska declined to slightly less than one-third, still far ahead of the national level of 19 percent . . . . [Federal Government civilian employment was] 17,944 workers in 1975. . . . State government employment increased 1.6 percent in FY 77 to reach 14,080. . . . Total employment during the first three quarters of FY 77 in the local government sector increased 8 percent . . . to 15,925." (21, pp. 38-39) (Bracketed material added for clarity)

The source (ADOL) quoted above explains that considerable juggling of specific public agencies as the immediate direct employer has taken place since 1970, but the fact remains that an average constant of 32,025 persons were employed by government in FY 77, constituting a little over one-fourth (25.4%) of the total civilian work force. Pertinent to this unusual stable utilization pattern of the state's work force is that part of the reason for an 8% decline in total military personnel based in Alaska in FY 77 was seen to be "principally the result of the Air Force contracting base support operations, previously handled by military servicemen, to civilians" (21, p. 38). Also pertinent to establishing parameters for discussion

related to utilization of the Alaska Native work force are other statements from the state's authority on the Alaska economy, the Alaska Department of Commerce.

> ". . . (O)ur analysts have been predicting a more moderate decline in the State's post-pipeline economy instead of the sharp declines forecasted by other economists. . . . In addition, more houses and commercial and industrial buildings were constructed in 1977 than during any previous year. In fact, by excluding contract construction employment (under which pipeline workers were classified), there appears to have been a net increase in 1977 of 1,500 non-agricultural jobs in Alaska. . . . It has generally been assumed that there existed a direct cause and effect relationship between pipeline construction and the State's economic expansion. Preliminary data for 1977 indicate that while pipeline construction employment continued to decline during the year, it has not triggered massive layoffs in other, non-pipeline sectors of the State's economy. Indeed, even with an annual average loss of 11,300 construction workers [in 1977], total employment in Alaska for 1977 is expected to decline by only 9,700 workers, or less than 6 percent from the historic high level in 1976. (The Alaska Economy Year End Performance Report 1977, 21, p. 1) (Bracketed material added for clarity)

The information for FY 77 available in the terms presented by the Alaska Department of Commerce does not address the civilian work force in context of race and sex employment statistics. The 1977 Department report, however, does provide a cogent description of the Alaska Native Claims Settlement Act sufficient to communicate its impact on the state's economy with real and potential implications for stable, strong demand on an extant Alaska Native work force (see Addendum E). Forecasted and scheduled construction projects projected into the 1980's also provide some insight for an anticipated stable demand for Alaska Native workers (see Addendum E).

As noted in the preceding section, the Alaska Area Native Health Service is a primary federal agency source for statistics and information dealing with birth,

death, and population data for Alaska Natives. In keeping with its mission, the Bureau of Indian Affairs' Juneau Area (all of Alaska) is the primary federal agency source for statistical information dealing with the social, economic, and educational services provided for Alaska Natives. The BIA is subdivided by five regional administrative agencies located in Nome, Fairbanks, Bethel, Anchorage, and Juneau. In recent years congressional action has enabled both AANHS and the BIA to cooperatively engage in contractual arrangements with the Native Regions and Villages or Reserves whereby paraprofessionals and aides are trained and employed in a variety of the helping services and human service delivery support system. CETA and other state/federal training/employment programs, together with other private and public programs in support of postsecondary and higher education for Alaska Natives involve a substantial number of Native youth and adults as well. Thus, the Alaska Departments of Education, Labor, Social Services, and Community and Regional Affairs develop statistics and compile information about Alaska Natives to meet state needs, while AANHS and the BIA gather similar information to meet federal requirements. In practice, considerable statistical information is exchanged between interested agencies, but U.S. Census, BIA, and AANHS remain the primary sources for general Alaska Native enumerative data. Concurrently, the BIA, ADOE and ADOL are primary sources for data enumerating Alaska Natives undergoing education, training, or reported in the work force at the state level.

A distinction must be made between ADOL's use of the term "labor force" and BIA's application. "Labor force" is generally defined as persons employed or unemployed and actively seeking work. "Labor force" as applied by BIA is a less specific term since it is potential; that is, it includes persons not regularly available for employment or with severely limited saleable skills, those fully engaged in work not officially recognized as employment, and those reported in the state work force. For purposes here, the term "work force" will generally appear in context of the ADOL definition.

Since 1970, both ADOL and BIA have adopted new procedures and techniques in gathering and reporting work force/labor force data. Under these conditions, suitably comparable data by quarters is not consistently available for each quarter since 1970. The available data does permit a demonstration of the general population and Native population and work force increase with some indication of Native and non-Native work force utilization patterns. Certain of the Native Regions have contracted with BIA to compile periodic local reports of Native labor force. These are reviewed and adjusted by BIA statistical specialists for final recording. Comments made by the BIA Juneau Area regarding the Alaska Native Labor Force Report during the first quarter of 1978 are enlightening. A full copy of the adjusted report appears in Addendum D.

"[Tanana Chiefs Region and Arctic Slope Native Association] appear high, totaling 15,985 as compared to 11,851 for March, 1977 [BIA] estimate Tanana Chiefs Region to be 7,000 ± 300. Their report is within these limits. The Under 16 category was only 2,624 and is likely 300 or 500 higher. The 4,258 reported 16 years and over seems disproportionally high by 300 or 400.

"The total Native population reported for Arctic Slope Native Association [8,705] is high. An estimate of 4,250 ± 500 is more reasonable. Youth under 16 were reported 1,146, only about 12.5 percent. A more likely figure would exceed 40% or 3,480+. . . . For any Region, the Alaska Native labor force is likely 25 to 30 percent of the total population. It is lower than in a normal distribution because of the high proportion of Youth - over 50 percent under 18, and larger Native families." (BIA Report of Labor Force (Combined Agencies), Feb. 1978.) (Bracketed material added for clarity)

The foregoing comment refers to corrections and adjustments required during pre-submission review of labor force reports compiled locally and channeled through BIA agency superintendents and officials to the Area Superintendent.

Figures appearing in tables or otherwise cited noting the BIA Report of Labor Force as the source appearing in these pages are those that have been corrected or otherwise adjusted by the Juneau Area statistician and approved for recording by the Area Superintendent.

No annual average report of Alaska Native work force (or labor force) is available. As noted earlier, the reports that are available for several previous years from the BIA are consistently within the first calendar quarter with one exception falling in the second quarter. Thus, the bulk of available reliable information does fall within the period when demand upon the Native work force is generally lowest and estimates for the Native work force can assume that the estimated total is probably a

realistic reflection of the stable or constant proportion of Native persons aged 16+ regularly included in the state's work force. It can reasonably be assumed that the annual average number of persons in the Alaska Native work force would be slightly higher than early calendar year estimates due to youth available for summer employment and/or adults freed for employment because older children are home to provide care for younger ones. The annual average, however, could not reasonably be expected to change for these reasons much over an additional 3 to 5% of the first or second quarter estimates. Insufficient data and information are available to develop more than a "best judgment" model for estimating the proportion of over age 16 Alaska Natives in the Native labor force (total manpower), and the proportion of age 18 through 64 actually in the labor force or work force (by sex). Factors upon which to base worker seasonable availability or job site preference are not available. It is noteworthy that demands made upon the Alaska Native labor force (total manpower) graphically describe a peak and valley seasonal demand nearly identical to that for the state work force. It is also noteworthy that statements made by Alaska Native leadership concerning periodic unemployment for some members of the Native labor/work force are obviously justified. This refers specifically to remarks that communicate in context the following concept:

> "The North Slope oil development and pipeline construction has benefited many Alaska Natives. The oil companies held training programs for some Natives to fill permanent jobs. The pipeline builders made special efforts through agreements with labor unions to recruit workers from villages into the unions and onto

high-paying temporary pipeline jobs. Other villagers participated through support and construction contracts let by the pipeline companies directly to subsidiaries of the regional corporations. But as pipeline construction winds down, village workers who are now union members and trained into construction skills are facing an economic slump, like all Alaskans. The difference is the village worker must make a choice of either returning to his home village where union work may be non-existent, forcing him to drop his union membership and benefits, or moving to the urban center where he must compete with many other Alaskans. Either choice is expensive and frustrating." (Alaska Natives, 18, pp. 4-5).

Pertinent documentation from various official sources suggests that a number of Native persons who were temporarily employed directly or indirectly as a result of oil pipeline construction labor demand continue to be counted in labor force reports through 1978. A portion of those left unemployed at completion of the pipeline construction project undoubtedly have found other employment through regular channels or have been absorbed into CETA project employment and through the growing demands for Native workers in Native Region service and business interests. Unquestionably, some relatively small number of Native persons who were employed on pipeline construction have returned to Villages in the belief similar employment opportunity is not immediately forthcoming and have not maintained their names on local employment service records as seeking work. It would be unreasonable to expect the number of Native persons so affected to alter substantially the 5% plus/minus factor recommended when applying finalized population and work force estimates compiled through this investigation.

Contemporary evidence demonstrates conclusively that subsistence harvest pursuits (seasonally coupled with commercial fishing where possible) constitutes one of the primary social and non-welfare dollar economic foundations for rural Native Villages. There is little reason to believe this condition will change substantially before the end of the next decade. Bits and pieces of evidence suggest that Native employment in the Villages will increase during this same period in response to demands associated with Settlement Act and the present thrust of CETA employment and training. Much of the rural CETA program lends itself to accomplishing the employment infrastructure demanded to meet requirements for representative involvement in local government and public employment. The rural CETA program is also a reflection of internal human resource development policy as it is generated by Native Regions. The ultimate outcome for the present forced change in Native Villages through modernization is a matter of philosophical debate. The impact of federal and state legislation, and Region programs and projects on Alaska Native manpower utilization is just beginning to surface. The limited data presently available, however, do not meet requirements for predicting probable realities for Native work force demands beyond specific events or places. For purposes here, an attempt is made to deal with conditions to be encountered through 1980 by major employers who are actively seeking to establish realistic affirmative action plans as these may relate to utilizing members of the Alaska Native labor force.

Affirmative Action Goal-Setting Considerations:

Construction projects of the scope and magnitude of the Alyeska oil pipeline and the scheduled Northwest Alaska gas pipeline involve serious consideration for the immediate and long-range effect the total labor demanded will (or can) impose on the entire state's work force. Conversely, the expanded present and apparently stable (or rising) non-pipeline related work force demands in Alaska can be expected to affect the quantity and quality of the resident labor pool available to large-scale, labor-intensive, heavy construction project employers (25). Construction of the oil line was a unique and baptismal experience for the pipeline industry, roughly comparable to virgin experiences faced in the construction of the Panama Canal and completion of the first intercontinental railroad. In the broadest sense, the Federal Government secured financing for the latter historical endeavors to the point where manpower cost efficiences normally applied by private industry of those times could be less stringently imposed in the interests of meeting sub-task deadlines and completing a total project.

Regardless of other considerations, there is no question that the transAlaska pipeline was constructed under Federal EEO laws and regulations and State regulations under conditions and circumstances unique in American industrial history.

In the case of the Alaska gasline construction, there are three major differences related to management and operation practices causing this particular labor-intensive construction project to differ substantially from comparable events in the past.

- Construction of the gasline is privately financed under conditions that will require fixed price rather than reimbursed cost contracts at the construction execution levels.

- The total work force needed to construct the gasline is estimated to be about half of that employed in construction of the oil line.

- Experience gained through efforts to maximize utilization of resident Alaska manpower in general, and the Alaska Native work force in particular, in transAlaska oil line construction is sufficiently recent to afford insight into the scope and limitation of demand that can be placed on the resident work force and the state's work force ability to respond to specific demands associated with affirmative action goals. It is possible to ascertain with accuracy the impact gasline construction manpower demands may place upon the non-pipeline intrastate construction industry as a whole in relation to the ability of both parties to comply with project-specific AAP employer commitments (19, 20, 21, and 26).

Prior to tapping the immense oil and gas deposits in Alaska, and the passage of the Settlement Act, even in 1970 the state's employment foundation was estimated to be minimally 50% dependent upon federal spending (standard references). Since 1970, and particularly since 1974, the evolutionary economic change and growth in both the private and public sectors have produced a corresponding expansion in the resources and facilitating infrastructure serving to meet social and economic support and service needs throughout the state. Manpower development and work force utilization

in matters affecting major employers (particularly the construction industry) now may draw upon data and information resources and initially tested rural worker recruitment mechanisms from ADOL and other State departments not previously available. These facilitator resources can serve to assist government, employers, and workers to deal with AAP in a more practical and progressive manner than may have been possible in the past. Primary facilitators presently include:

- The State Manpower Services Council;
- The Governor's Manpower Planning Council (including five Regional Advisory Councils);
- Anchorage Manpower Planning Council; and
- The Alaska Federation of Natives and Native Region non-profit corporations (the latter also being Title III CETA prime sponsors).

A primary function of the State Manpower Services Council is to coordinate the planning and services called for under the Alaska State Manpower Program Policy with emphasis directed toward maximizing efficient compliance with the Comprehensive Employment and Training Act (CETA). The impact of CETA in Alaska cannot be overstated due to historically prevalent unemployment, underemployment, and joblessness largely related to economic underdevelopment and Alaska's characteristics of low population density, community isolation, small sustained individual employer labor demands except in highly isolated urban/military population centers; and the generally limited quantity and quality of saleable skills among the chronically unemployed, underemployed and jobless. The present and future impact of CETA on Alaska

manpower (and the implication this may hold for employers) is suggested by the fact that in 1978 there are 15 CETA prime sponsors in the state, of which 13 are Title III Native Region prime sponsors. Each of these sponsors not only provides employment for substantial numbers of people, but concurrently is increasing the quantity and improving the quality of the Alaska work force according to CETA reports and other measures used in program evaluation (19).

The Governor's Manpower Planning Council, with its subserving five Regional Advisory Councils, assists in the identification of public service needs, employment opportunities, training resources, and target groups in need of employment and training programs in the balance of the state outside of Anchorage. The Anchorage Manpower Planning Council serves similarly for that municipality. Through these activities, the Manpower Planning Councils serve to advise and help identify the direction, emphasis, and focus the Manpower Services Council will place on meeting developmental manpower needs and reducing joblessness over given periods of time (19). The Alaska Federation of Natives with associates (ex.representatives of the Native Regions and/or Reserves), serves as spokesman in many matters of interest to Alaska Natives. AFN additionally played an active and cooperative role in designing, supporting, and maintaining outreach Native hire activities throughout the oil line construction project period. AFN has acted in a facilitator capacity in the past in a number of situations involving development of the Alaska Native human resource potential, and can be expected to be prominant in this area for the foreseeable future (18).

The Manpower Services Council, the Manpower Planning Councils, the 13 Title III Native prime sponsors, and the Alaska Federation of Natives act much as advisory facilitators in matters where State and Federal Government, labor and management, and company spokesmen for labor-intensive major construction projects can combine resources in a systematic approach to establishing affirmative action goals for Alaska Native employment in the best interests of the State, the Alaska work force, and Native people.

The statistical descriptions afforded by various official and authoritative sources bearing directly upon sex and race ratios for the Alaska population and work force provide numbers with limited actual relationship to place of usual residence, and sometimes little real relationship to occupational qualifications, skill levels as defined by employer position requirements and worker availability (25 and 26). A primary project operator (e.g., Alyeska Pipeline Service Company in the past, government in the present, and--potentially--Northwest Alaskan Pipeline Company) faces not yet fully defined specific Alaska work force problems in translating affirmative action goals into realistic numbers, percentages, or timetables. The foregoing statement is not intended to suggest that the concept of federal goals and timetables for women and minorities in Alaska is open to question. The suggestion intended is that consideration for the employment of women, minorities (including Alaska Natives), and others who are covered by equal employment regulations affecting the construction industry be specifically assessed in terms of actual capacity of the resident

Alaska civilian population and work force to meet categorical worker demand for a single employer who must compete for the physically limited number of qualified and available women and minority workers now residing in the state.

Specifically, in relation to the heavy construction industry, some recent past examples may help clarify the problem faced by employers, the state, and members of the resident work force. Employer demands for Alaskan women with competencies to fill jobs traditionally held by men make such jobs so financially rewarding that some social or education service workers with years of invaluable experience and costly educations are seen driving trucks or working in warehouses. Their replacements, if women, were rarely racial minorities and seldom Alaska residents of more than one year. Employed minorities in white-collar, blue-collar, and service occupations responded to opportunities for short-term, high-paying employment at a time when public sector CETA program projects and internal Native Region employment demands began to manifest themselves. The result was an in-migration of out-of-state workers to fill many newly opened position vacancies. Many of these people remained due to an ability to command saleable competencies not shared by those whose job vacancies they filled. This situation obviously did little to alleviate the state's general unemployment problem, and sent many Alaska Natives and other resident minorities on the unemployment list as new or returning registrants or, in some cases, they dropped completely out of the work force (17, and 18, p. 5).

A particularly pertinent consideration in relation to interpretations associated with affirmative action employers in the Alaska construction industry is found in the fact that the state's non-pipeline construction industry shows a "boom in residential construction activity" since 1973, demonstrating a dramatic incline since 1975. Non-residential construction for just Anchorage, Fairbanks, and Juneau shows a minimum increase of 4.4% for 1977-78 over a previous comparable period. State expenditure for public construction involving numerous on-site projects will be approximately $403 million for FY 77. Information sources do not provide a basis for employment estimates related to this dollar amount, but since many of the appropriations are associated with upgrading runways, roads, seaport terminals, 46 school projects, docks, harbors, flood control, fish hatcheries, and "numerous small projects scattered throughout the state," a substantial number of workers (by Alaskan work force standards) will be demanded. An exhaustive list of planned or on-going small construction projects under EDA Title VI grants, Native corporations, military establishments, and recent small-scale oil and gas field discovery and development construction could be appended to the aforementioned construction activity. A review of trade publications reporting construction contract bid awards will confirm that the non-pipeline construction industry has unexpectedly continued to expand throughout the state, as have government, trade, service, and transportation (when disassociated from the oil pipeline construction impact) (22) (see Addendum E).

For affirmative action planning purposes, it appears logical that the current expanding population and work force in Alaska will require state statisticians to introduce special data factors to insure future minority work force estimates are annually available to major employers of Alaska Natives and state residents. Such information would help to prevent over emphasis on rural recruitment that may adversely affect planned Native Village socio-economic growth and development or encourage individuals to drop eduction and training needed to develop the human resources necessary to realize the full intent of the Settlement and Self-Determination Acts and CETA.

The civilian population and work force of Alaska, by all available evidence, appear to sustain a substantial annual increase due to in-migration, although both fluctuate seasonally as well. It may be realistic, and prove well advised for AAP purposes, to treat the Alaska Native population and work force in keeping with known physical limits, and the general Alaska civilian population and work force on the basis of past year averages rather than coming year forecasts.

Past Heavy Construction Employment Impact on Alaska Native Work Force:

Starting with the bartering of goods for services in the days of early fur trade, fisheries, and whaling, Alaska Natives have historically been drawn into the dominant Alaska society work force when demand exceeded the local supply of non-Native manpower. Particularly, Alaska Natives were locally substantial participants in the regular Alaska work force during peak manpower demands of the gold rush

period the early part of this century, and again during national defense construction during the 1940's. Measures of the percent of Native adult worker participation during these times are not a matter of record, nor has the adjustment of Native Villages to the ebb and flow of cash income produced through short-term employment in labor-intensive projects of those times been studied and recorded.

Time and circumstance dictated that serious attention be directed toward maintaining a record of Alaska Native hiring procedures and patterns during the construction of the transAlaska oil line from the beginning of 1974 through construction completion at the beginning of 1977. Concurrently, general attitudes relating to Indian self-determination, expectations associated with the Alaska Native Claims Settlement Act, and dramatic socio-economic changes in the Villages resulting from federal programs related to reducing poverty and greatly expanding educational services among Alaska Natives imposed remarkably accelerated changing conditions upon the Native population and communities. In attempts to assess the Alaska Native population in terms of its manpower and participation in the state's work force, the magnitude of these two circumstances occurring at the same point in time becomes an important consideration. Although there is presently little research completed, some reasonable assumptions presently appear sufficiently obvious to be accepted pending significant evidence to do otherwise.

The Alaska Native work force growth in recent years apparently parallels the working age group proportional growth. The 1980 Census can be expected to des-

cribe a significantly higher level of educational attainment, employment experience, and occupational skills training among Alaska Natives than was reported in 1970. A significantly higher level of stable employment in the rural Villages due to Native Region human service and business affairs as well as federal programs as presently exist can be expected to continue well into the 1980's. Federal requirements relating to EEO affirmative action plans have greatly expanded the demand for Native workers since 1970 and can be expected to continue for the foreseeable future. These and other factors combine to create a difficult dilemma for Native leadership, government, and major employers involved in short-term labor-intensive construction projects. A portion of the whole Alaska Native work force, subdivided by Regions, must necessarily be available to meet stable and seasonal Region employment needs. Another portion will clearly be employed in stable demand, year-round occupations associated with principal industrial and government occupations in Alaska. A third portion will involve new entries into the job market and those who are underemployed or available seasonally or through career or occupational change. Present data simply do not provide sufficient information to enable government or Native leadership to determine with confidence what portion of the Alaska Native work force or labor force as reported by the BIA (through cooperation with the Regions) is to be targeted for movement into the general work force under given sets of conditions. Most particularly, the situation assumes the proportions of a problem in attempts to deal fairly and appropriately with assuring equal employment opportunity for Alaska Natives in establishing Alaska Native hire goals in major labor-intensive construction projects.

The recent experience with construction of the trans Alaska oil line affords some insight into the problem. Almost 5,800 Alaska Natives (approximately 4,900 men and 880 women) were employed during the 38-month period from January 1974 through February 1977. Of these, about 810 worked less than 8 weeks, 1,660 worked from 9 to 33 weeks, and about 500 worked 53 weeks or more. Of the total number of Alaska Natives hired during the three-year period, 95.1% were employed under union local craft categories. A substantial number of Native persons hired spent some if not most of their categorical employment period in preparatory training or apprenticeship occupations. These figures suggest that during the years 1974 through 1976 about 1,700 employable Alaska Natives were consistently available for employment on the pipeline construction. This does not necessarily mean that the same individuals are represented by the estimated 1,700. Since the 5,770 Alaska Natives employed from less than 1 week to more than 53 weeks during a 38 month period held 15,047 jobs, obviously a major portion of the total number of Native employees worked no more than one or two three-week or less work periods (26, pp. 2-17). In a report focusing upon Alaska Native hire on the oil line project, it is noted:

> "For many Natives, as with non-Natives, work on the pipeline often involved a succession of several different jobs. Native workers on the average held slightly less than three different jobs each, ... Some of these job changes represented only administrative changes in level, salary, or other administrative shifts. . . . Not surprisingly, the pipeline employment was unevenly distributed throughout the adult Native population. For example, the project employed more men than women, more younger than older people, and more people from some communities and regions of the state than others.

"Figures for the total pipeline work force show approximately 60,000 individuals filling 131,000 jobs during the course of the project, averaging just over two jobs each. Natives held 11.5 percent of the total jobs and represented 9.7 percent of the pipeline work force. (26, p. 3)

. . . . .

". . . more than half, 51.5 percent of all Natives hired worked for 8 weeks or less. (This could also be true for non-Natives, but we have no data on the work habits of these other groups.) Further, 25 percent of the Natives worked for only two weeks or less. On the other end of the spectrum, 0.4 percent worked throughout the entire construction period (171 weeks), and 7.7 percent worked longer than a year. It is suspected that this short-time employment is not unusual, given the Native life-styles and previous history of limited participation in the wage-labor market. Certainly, by Euro-American working standards, the amount of time Natives spent on the job was not substantial. However, lacking comparative data for non-Native pipeliners there is no way to determine the significance of these short work periods. (26, p. 14)

. . . . .

". . . It is true, however, that the level of Native involvement in the labor market does not compare to white involvement. This lesser involvement partially results from the Natives' different values and motivations. For example, a Native knows just how many dollars are needed to make it through the winter and enable one to buy necessary supplies and equipment. He often couples this with subsistence to provide for survival in his traditional life style." (26, p. 18)

Alaska Native Hire on the Trans-Alaska Oil Pipeline Project

The report concludes by acknowledging that "more questions are raised than answered by the analysis of employment statistics alone."

"Comparative data on other work categories, especially whites, are lacking. Baseline studies on prepipeline Native economy, work habits, culture, and life-style do not exist in a form that reflects the basically different cultural patterns of Natives. . . ." (26, p. 18)

Within context of noting the various questions that might be raised regarding Native manpower utilization on the oil line project, implicit are several considerations that apply to utilization of the Alaska Native work force as a whole.

There can be little question that Native pipeline employment did affect families, communities, and rate of cultural change, or that by pre-pipeline income standards the amount of individual earnings for Village residents was substantial. Native hire recruitment for the pipeline brought stronger response from some Regions than others, as well as much stronger male interest.

> "Proximity to recruitment centers, regional corporation efforts, regional job contracts, special recruiting, degree of acculturation, and cultural factors were obviously involved. Most important to degree of participation appeared to be proximity to employment center and the recruiting efforts made on Native behalf by the regional corporations." (26, p. 19)

Categorically, the majority of jobs Natives held in pipeline construction were unskilled or low skilled occupations. Research has not been reported to indicate if the pipeline experience has generally enhanced Native employability or motivation to remain in the work force on a more sustained basis through recruitment on a statewide scale for construction or other types of regular or seasonal employment. A substantial portion of Native pipeline employment was directly tied to training--on-the-job, apprenticeship, and basic preparation for the world of work offered through institutions (26, p. 19). (See Tables 16, 17, and 22 and Addendum G for details.)

There can be little doubt that the basic learning and upgrading of skills afforded the Native work force in general through the pipeline hire procedures produced

desirable outcomes from varying points of view. A number of individuals acquired competencies needed to meet immediate Village and Region employment or labor demands. Pipeline employment experience provided the opportunity for Native families, communities, and Regions to assess the effect of short-term, high-paying work periods away from home on human lives and community affairs. To date little mention appears in research or statistical reports to indicate the opportunity for this type of serious assessment has received the merited attention. The final judgment by the people and organizations most affected is not presently known, but two widely divergent opinions may suggest future attitudes toward Native manpower utilization in the work force.

The Alaska Native Foundation voices Native concern that those persons who participated in support and construction contract employment during the pipeline construction face loss of union membership and benefits through lack of dispatch facilities when they return to their homes in the Villages. Given the circumstances, relocation to urban centers solely to be available for work as it may arise is no solution by any standard (18, p. 4). It appears that the unvoiced issue is one of the ability for Alaska Natives to sustain gains made as participants in the statewide work force demand for labor-intensive construction projects obtained through the pipeline experience without sacrificing personal choice in permanent place of residence and cultural foundations of lifestyle.

In a recent research report dealing with the work adaptations of Alaska Native men and women, conclusions were reached that bear directly upon the successful involvement of Native men and women in the regular work force. Regardless of political focus upon equal rights and equal opportunity, a documented encounter with present realities affecting Native employment associated with cultural values that have proved functional for thousands of years or traditional practices that accommodate cultural change cannot be ignored.

> The women workers tend to submit to the demeaning conditions of low-skilled jobs while the men tend to resist them. . . . The masculine ideal in Native societies was a skilled and able worker who was important to his work group, family, and village. . . . Native women were socialized similarly to Western women, primarily to roles as wives and mothers. Native women's socialization, however, does not prepare them for entry into the economic mainstream, but it is highly functional in equipping them to adapt to low-status jobs. . . . Their training . . . prepared them for being treated as inferiors on the job and equipped them with skills for managing the caste-like relationships frequently encountered in the work place." (30, p. 42) Urban Native Men and Women--Differences in Their Work Adaptations

The author notes that the study has focused upon low-status jobs in urban places of employment. It needs to be noted here, however, that the great majority of Alaska Natives now of working age were not raised in urban communities and merely living in a modern city does not make an individual "urban" in personality or attitude. Additionally, the study concentrates on young persons averaging approximately one-half who completed high school (of whom about half had completed a vocational education program), and one-third who had military experience. An important qualifying factor in interpreting this study on Native work adaptations is to recognize that "low status" refers to work that would be classed as "menial" by dictionary definition, versus

"skilled" as defined by the author ("sales, high grade clerical, craftsmen, operatives" (30, pp. 17-23)). This research is pertinent to Native manpower utilization because it suggests that (1) Native men are likely to respond to job opportunities perceived as work befitting a man; (2) time-frame (job specific periods) employment allows for personal choice and arrangements to cover for being absent from home and Village responsibilities; and (3) lack of employment opportunities or workable facilitators for short-term employment away from home may result in self-defeating situations for individuals, employers, and government employment services and training programs. The latter situation refers to situations where Alaska Natives have appeared in Alaska's largest population centers and, failing to find work (or a successful work experience), lack the means or the motivation of a successful accomplishment and so join the constantly changing floater population of local "skid-rows."

According to one report, "as many as 200 Native men may be living on the street (Anchorage skid-row) at any one time. An additional number drift from place to place" (30, p. 22). Out of a random sample of 101 Native men and women representing all cultural groups in Anchorage in 1975 (the year of peak Native hire on the pipeline project), 15 men and 6 women were unemployed at time of initial contact (30, p. 23). Although 101 Alaska Natives drawn randomly from the Anchorage Native population may be regarded as numerically small, considering the intense interest in Native hire on the pipeline, plus about 20% of the sample being

unemployed, is suggestive. (It is not stated if those men and women seeking work were employed subsequent to their involvement in the study.) What is suggested by this sample is that there is probably substance to the belief held by some state officials and employment specialists that Alaska Natives seeking work when there is a peak statewide labor demand--like pipeline construction--do tend to congregate in population centers where job service and employment recruiting services are located in both rural and urban communities.

In utilizing the Alaska Native work force--be these individuals seeking work temporarily, seasonally, or permanently--it appears that patterns of demand and utilization of manpower internal to Native Village needs must be equated with the factors of worker identification, communication, and logistics of recruitment and transportation. The oil line construction project demonstrated high individual Native interest in this type of employment, and equally high interest and support by AFN and several of the Native Regions regarding the employment and training opportunities afforded by the project.

Two major facets of Alaska Native work force utilization have been clarified as a result of the Native hire focus during the oil line construction

- It is reasonable to assume that about 7 to 10% of the Alaska Native work force (preponderantly men) are regularly available for heavy construction related employment through this decade (based on the four-year average shown on Table 13). Table 15 suggests that the 7% figure involves about 4.4% of the 18 through 64 age group of the Alaska Native population in 1978.

- Some 5,489 Alaska Native work force members as of 1978 have been identified as holding skills associated with the jurisdiction of 19 union locals operating in the Alaska heavy construction industry (Table 6). Approximately 1,000 Native individuals are identified with crafts under each of three unions: Operating Engineers, Teamsters, and Laborers. The actual number of Alaska Natives presently holding union membership is not known, but recent past and present membership is a matter of record that can be made available as needed. It may be safely assumed that Native concern regarding retention of union membership beyond individuals' interests stems from sustaining the gains made by Alaska Natives in crossing the threshold for entry into the Alaska work force through regular channels in craft employment, and from awareness of future employment opportunities in scheduled and planned labor-intensive heavy construction projects in the foreseeable future (Addendum E).

A third facet of Alaska Native work force utilization is yet to be defined and the demand described in terms of numbers and time scale. This encompasses the stable predictable demand to be made upon the Native work force by internal Native affairs--Region local government, human services, and corporate or private business. Presently this element in a general formula that might be derived for proportioning stable Alaska Native work force supply and demand is confused by the varied levels of circumstantially imposed social and economic development within the Native Regions. Further compounding the situation is the high level of CETA and other federally sponsored programs that currently support a substantial portion of local Village employment. There is little reason to expect clarification before the 1980's regarding how much of the CETA Village and Region local employment presently absorbing significant numbers of the Alaska Native work force will stabilize and become permanent. For the present it can only be recognized as an important part of Alaska Native work force utilization.

Addendum F provides a description of CETA program facets operating in Alaska in sufficient detail to communicate that the impact is substantial and can be expected to continue to have broad effect into the early 1980's. It should be noted that by the nature of Alaska's population characteristics when compared to the intent of CETA, that a major portion of the statewide CETA target participants unquestionably are Alaska Native individuals and Villages. The Public Service Employment, Work Incentive, Vocational Rehabilitation, and newly introduced Tribal Work Experience programs under CETA will without doubt affect the quantity and quality of the Alaska Native work force and the availability of its members for employment during the various forthcoming calendar quarters.

MAP 8
ADOL LABOR MARKET AREAS

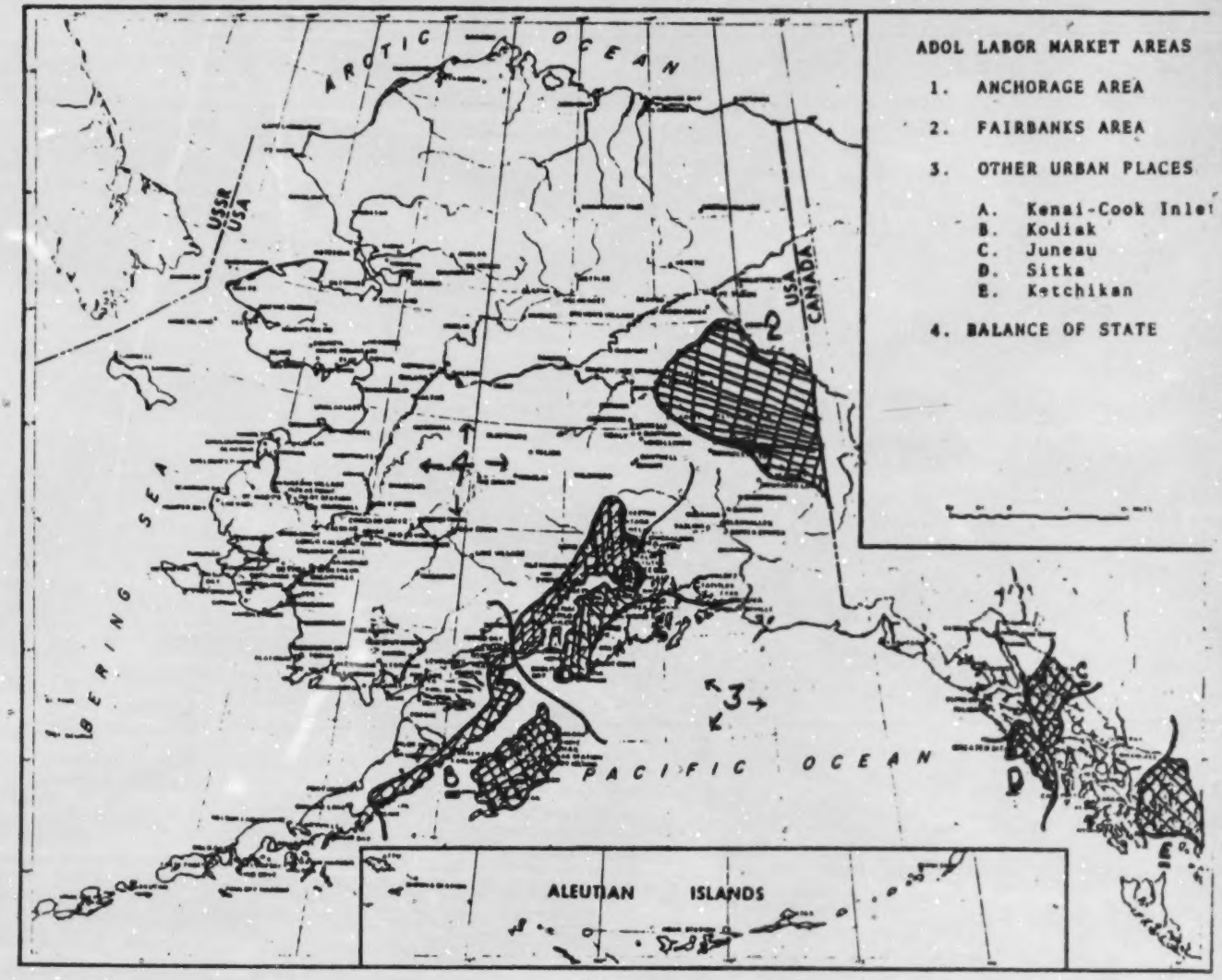


TABLE 12

ALASKA NATIVE POPULATION DERIVED AGE GROUPS[a]
ESTIMATES 1970 - 1978 - 1980

	1970 Total AN	1978[2] Age 18 Through 64					1980[2] Age 18 Through 64				
		T AN	T	%	M	F	T AN	T	%	M	F
NORTHWEST	10466	13264	6460	48.7	3353	3107	14520	7017	48.7	3670	3401
SOUTHWEST	14315	18644	8819	47.3	4524	4295	20382	9641	47.3	4946	4695
INTERIOR	6105	6291	3223	51.2	1802	1421	6679	3420	51.2	1912	1508
SOUTH CENTRAL	10672	15990	8059	50.4	4376	3683	17415	8777	50.4	4766	4011
SOUTHEAST	9748	11062	5685	51.4	2951	2735	12120	6230	51.4	3233	2997
STATE TOTAL[c]	51306	606[b] 65857	32467	49.3	17078	15389	71116	35060	49.3	18442	16618

a) As derived from 1970 Census, See Table 4.
b) AANHS statistical correction, see Table 11.
c) Computed on statewide basis; sum of Regional totals for projections differ approximately +1%.

Compiled by: Human Environmental Resource Services, Inc.

Sources:
1. Alaska Native Population and Manpower: 1975, p. 98.
2. Alaska Area Native Health Service, Office of Systems Development, Internal Reports 1970 through May 1978.

TABLE 13

ALASKA NATIVE POPULATION, LABOR FORCE,
WORK FORCE, AND OVER AGE 16
ESTIMATES 1973 - 1978

	Fairbanks Agency (Arctic Slope, Doyon)				Anchorage Agency (Ahtna, Aleut, Chugach, Cook, Inlet, Kenlag)			
	1975	1976	1977	1978	1975	1976	1977	1978
Total AN	10853	11287	11851	12132	19683	20371	21594	22509
M	5802	5936	6155	6461	10722	11097	11742	12154
F	5051	5351	5696	5671	8961	9274	9842	10355
Age 16 +	5940	6030	6384	7343	10294	10653	11440	12377
Age - 16	4913	5257	5467	4789	9389	9718	10144	10132
% age 16 +	54.7	53.4	53.9	60.5	52.3	52.3	53.0	55.0
Labor Force	3154	3168	3529	4849	5595	5794	5329	6051
M	2099	2143	2261	3038	3738	3868	3813	4118
F	1055	1025	1268	1811	1857	1926	1516	1933
% In Labor Force	29.1	28.1	29.8	40.0	28.4	28.4	24.7	26.9
Work Force	2149	2164	2248	3182	5269	5453	5061	4802
M	1544	1532	1863	1839	3704	3834	3327	3384
F	605	632	385	1343	1564	1619	1734	1418
% In Work Force	19.8	19.2	19.0	26.2	26.8	26.8	23.4	21.3
Employed	1561	1568	1646	1524	3602	3728	3376	2927
M	1220	1202	1533	739	2589	2680	2385	1944
F	341	366	246	785	1013	1048	991	983
% Work Force Employed	72.6	72.5	73.2	47.9	68.4	68.4	66.7	61.0
Unemployed	588	596	602	1658	1667	1725	1685	1875
M	324	330	530	1100	1115	1154	942	1440
F	264	266	72	558	552	571	744	435
% Work Force Unemployed	27.4	27.5	26.8	52.1	31.6	31.6	33.3	39.0

Table 13, p. 2, continued

	Juneau Agency (Sealaska, Metlakatla)				Nome Agency NANA, Bering Straits)			
	1975	1976	1977	1978	1975	1976	1977	1978
Total AN	10985	11303	13255	13522	9730	9924	10421	10525
M	5646	5818	6785	6938	5127	5227	5489	5544
F	5339	5485	6470	6584	4603	4697	4932	4981
Age 16 +	6967	7191	8387	8549	5492	5586	5864	5922
Age - 16	4018	3905	4868	4973	4238	4338	4557	4603
% age 16 +	63.4	63.6	63.3	63.1	56.4	56.3	56.3	56.3
Labor Force	4903	5265	6017	6147	3582	3637	3817	3854
M	2975	3172	3556	3514	2237	2258	2371	2394
F	1928	2093	2461	2633	1345	1379	1446	1460
% in Labor Force	44.6	46.6	45.4	45.4	36.8	36.7	36.6	36.6
Work Force	3158	3503	3169	4825	2729	2890	3034	3064
M	1970	2379	1968	2110	1762	1809	1899	1918
F	1221	1124	1201	2715	967	1081	1135	1146
% in Work Force	28.7	31.0	23.9	35.6	28.0	29.1	29.1	29.1
Employed	2709	3053	2542	3346	1751	1812	1902	1921
M	1628	2034	1576	1472	1104	1132	1188	1200
F	1081	1019	966	1874	647	680	714	721
% Work Force Employed	85.8	87.2	80.2	69.3	64.2	62.7	62.7	62.7
Unemployed	449	450	627	1479	978	1078	1132	1143
M	342	345	392	638	658	677	711	718
F	107	105	235	841	320	401	421	425
% Work Force Unemployed	14.2	12.8	19.8	30.6	35.8	37.3	37.3	37.3

Table 13, p. 3, continued

	Bethel Agency (Bristol Bay, Calista)				Juneau Area (State)			
	1975	1976	1977	1978	1975	1976	1977	1978
Total AN	11475	11825	13055	13316	62726	64710	70166	72004
M	6031	6131	6698	6831	33328	34209	36869	37928
F	5444	5694	6357	6485	29398	30501	33297	34076
Age 16 +	5684	6084	7361	7508	34377	30730	39346	41699
Age - 16	5791	5741	5694	5808	28349	28959	30730	30305
% age 16 +	49.5	51.4	56.4	56.4	45.2	55.2	56.1	57.9
Labor Force	3893	4087	5403	5511	21127	21951	24095	26412
M	2507	2610	3114	3176	13556	14051	15115	16240
F	1386	1477	2299	2335	7571	7900	8980	10172
% in Labor Force	33.9	34.6	41.4	41.4	33.7	33.9	34.3	36.7
Work Force	2099	2504	4595	4648	15404	16514	19108	20521
M	1492	1831	2988	3048	10472	11219	12045	12299
F	607	673	1607	1600	4932	5295	6063	8222
% in Work Force	18.3	21.1	35.2	34.9	24.6	25.6	25.8	28.5
Employed	1289	1631	1624	1571	10912	11792	11090	11289
M	927	1212	1007	1027	7468	8094	7489	6382
F	362	419	617	544	3444	3698	3601	4907
% Work Force Employed	61.4	65.1	35.3	33.8	70.8	71.4	61.2	55.0
Unemployed	810	873	2971	3077	4492	4722	7018	9232
M	565	619	1981	2021	3004	3125	4556	5917
F	245	254	990	1056	1488	1597	2462	3315
% Work Force Unemployed	38.6	34.9	64.7	66.2	29.2	28.6	38.8	45.0

Compiled by: Human Environmental Resource Services, Inc.

Source: Report of Labor Force, Juneau Area, Bureau of Indian Affairs, Feb. 1978, March 1977, March 1976, and May 1975 (all Reports available as of May 1978).

TABLE 14

ALASKA NATIVE AGED 18 THROUGH 64, 1978 ESTIMATE, PERCENT OF NATIVE POPULATION TOTAL BY BIA AGENCY DIVISIONS

	Mean Annual Increase[1] % Age 16 +	Mean Annual Decrease[2] % Age 64 +	1978 AN Population, Age 18 through 64[3] %	T	M[a]	F[2]	% Balance of Population
FAIRBANKS (Arctic Slope, Doyon)	6.7	1.2	59.3				40.7
TOTAL				7194	3878	3316	
ANCHORAGE (Ahtna, Aleut, Chugach, Cook Inlet, Koniag)	6.0	1.2	53.8				46.2
TOTAL				12110	6551	5559	
BETHEL (Bristol Bay, Calista)	3.4	1.2	55.2				44.8
TOTAL				7350	3881	3469	
NOME (Bering Straits, NANA)	2.5	1.2	55.1				44.9
TOTAL				5799	3085	2714	
JUNEAU (Sealaska, Metlakatla)	6.4	1.7	61.5				38.5
TOTAL				8321	4277	4044	
TOTAL AN POPULATION	6.2	1.3	56.6	40774	21672	19102	43.4

a) Computed by applying sex ratio percent reflected on 1978 BIA Report of Labor Force

Compiled by: Human Environmental Resource Services, Inc.

Sources:
1. Table 13, mean increase 1975-78.
2. Table 13, mean derived by combining Region totals as appropriate (Fairbanks and Nome Agencies).
3. Table 13.

TABLE 15

ALASKA NATIVE POPULATION CONFORMED TO BIA AGENCY AREAS
1978 and 1980
COMPARISON OF SOURCES

	1978 Age 18 through 64					% Total Population[b]	1980 Age 18 through 64					Projected[f] Balance of Population	Projected Tc ,I AN Population
	T	M	%	F	%		T	M	%	F	%		
1970 Census Extrapolated[1a]													
Northwest	4874	2497[d]	51.2	2377[d]	48.8	--	5136	2631	51.2	2505	48.8	--	--
Southwest	7580	3849	50.8	3731	49.2	--	8094	4111	50.8	3983	49.2	--	--
Interior/Arctic	4988	2753	55.2	2235	44.8	--	5275	2912	55.2	2363	44.8	--	--
South Central	6293	3408	54.2	2885	45.8	--	6518	3532	54.2	2986	45.8	--	--
Southeast	4915	2551	51.9	2364	48.1	--	5093	2643	51.9	2450	48.1	--	--
Census Detail Table	28650	15058	52.6	13592	47.4	--	30116	15829	52.5	14287	47.5	--	--
Detail Not Available	2555	1344	52.6	1211	47.4	--	2536	1331	52.5	1205	47.5	--	--
STATE TOTAL	31205	16402[c]	52.6	14803[c]	47.4	--	32652	17160	52.5	15942	47.5	--	--
BIA Labor Force Report[2,b]													
Fairbanks (Interior/Arctic - Arctic Slope, Doyon)	7194	3878	53.9	3316	46.1	59.3	7984	4303	53.9	3681	46.1	N/A	N/A
Anchorage (South Central - Ahtna, Aleut, Chugach, Cook Inlet, Koniag)	12110	6551	54.1	5559	45.9	53.8	13274	7181	54.1	6093	45.9	N/A	N/A
Bethel (Southwest - Bristol Bay, Calista)	7350	3881	52.8	3469	47.2	55.2	7674	4051	52.8	3623	47.2	N/A	N/A
Nome (Northwest - Bering Straits, NAPA)	5799	3085	53.2	2714	46.8	55.1	5805	3088	53.2	2717	46.8	N/A	N/A
Juneau (Southeast - Sealaska, Metlakatla)	8321	4277	51.4	4044	48.6	61.5	8327	4280	51.4	4047	48.6	N/A	N/A
STATE TOTAL	40774	21672	53.1	19102	46.9	56.6	43064	22903	53.2	20161	46.8	35566	78630
AANH Service Units[3,a]													
Northwest	5418	2774	51.2	2644	48.8	59.3	8001	4097	51.2	3904	48.8	6519	14520
Southwest	10291	5228	50.8	5063	49.2	53.8	11251	5716	50.8	5535	49.2	9131	20382
Interior	5765	3182	55.2	2583	44.8	55.2	3961	2186	55.2	1775	44.8	2718	6679
South Central	8603	4076	54.7	3897	45.8	55.1	9369	5125	54.7	4244	45.8	8046	17415
Southeast	6803	3531	51.9	3272	48.1	61.5	7454	3869	51.9	3585	48.1	4666	12120
STATE TOTAL	37275[c]	21098[c]	56.6	16177[c]	47.5	56.6	40036	20993	52.4	19043	47.5	31080	71116

Table 15, p. 2, continued

	1978 Age 18 through 64					% Total Population	1980 Age 18 through 64					Projected[f] Balance of Population	Projected Total AN Population
	T	M	%	F	%		T	M	%	F	%		
BIA/AANHS Mean Estimates, Ages 18 Through 64	39024	21385	54.8	17636	45.2		41550	21948	52.8	19602	47.3	33323	74873

. . . . . .

Age Group Mean Proportion Profile

1978	1980
Population: : Age 18-64 = (M : F)	Population : Age 18-64 = (M : F)
100% : 56.6% = (54.8% : 45.2%)	100% : 55.5% = (52.8% : 47.2%)

a) Native Regions conformed to BIA Agency areas.
b) Applied to other data not reported in similar detail - Table 14.
c) Columns do not conform in vertical sum due to statewide correction factor applied by data source.
d) Computed by Region.
e) See Table 14.
f) Derived on the basis of 1978 proportions shown on Tables 1 and 14. (N/A: "Not Available")

Compiled by: Human Environmental Resource Services, Inc.

Sources.
1. Table 6.
2. Table 13.
3. Table 11.

TABLE 16

ALASKA NATIVE CRAFT AFFILIATION DISTRIBUTION DURING OIL LINE CONSTRUCTION EMPLOYMENT

Rank	Craft	Individual Native	%	Jobs Held
1	Operating Engineers	1387	25.3	3931
2	Teamsters	1163	21.2	3105
3	Laborers	993	18.1	2752
4	Hotel & Restaurant	507	9.2	1321
5	Carpenters	416	7.6	949
6	Pipeliners	331	6.0	867
7	IBEW	195	3.5	416
8	Ironworkers	123	2.2	333
9	Asbestos	86	1.6	157
10	Plumbers & Pipefitters	70	1.3	155
11	Bricklayers	68	1.2	171
12	Plasters & Cement	52	1.0	125
13	Painters	26	.5	43
14	Pile drivers	25	.5	80
15	Sheetmetal	22	.4	34
16	Boilermakers	19	.3	35
17	Latherers	2	—	4
18	Cement Finishers	2	—	3
19	Roofers	2	—	2
	CRAFT TOTAL	5489	100.0	14483
	Other (Unknown, trainees, management)	281	--	563
	TOTAL	5770		15046

Compiled by: Human Environmental Resource Services, Inc.

Source: Alaska Native Hire on the Trans-Alaska Oil Pipeline Project, ISER Review of Social and Economic Conditions, Vol. XV, No. 1, Feb. 1978, University of Alaska, 1978.

TABLE 17

ALASKA PIPELINE ALASKA NATIVE HIRE, 1974 - 1977,
BY REGION OF ORIGIN AND JOBS HELD

	Region[a] of Origin	Jobs Held	% From Region
NORTHWEST			
Arctic Slope	253	638	
Bering Straits	431	1083	
NANA	379	941	
REGION TOTAL	1063	2662	18.4
SOUTHWEST			
Aleut	108	226	
Bristol Bay	210	458	
Calista	409	902	
REGION TOTAL	727	1586	12.6
INTERIOR			
Doyon	1566	4817	
REGION TOTAL	1566	4817	27.1
SOUTH CENTRAL			
Ahtna	175	480	
Chugach	223	564	
Cook Inlet	540	1473	
Koniag	80	175	
REGION TOTAL	1018	2692	17.6
SOUTHEAST			
Sealaska	944	2377	
REGION TOTAL	944	2377	16.4
Unknown	452	913	7.9
TOTAL	5770	15047	100.0

a) Regions are shown as employees noted for records. In some cases persons may have listed current place of residence rather than Village origin or permanent place of residence.

Compiled by: Human Environmental Resource Services, Inc.

Source: Alaska Native Hire on the Trans-Alaska Oil Pipeline Project, ISER Review of Social and Economic Conditions, Vol. XV, No. 1, Feb. 1978, University of Alaska, 1978.

Alaska Native Population and Work Force Data Summary Considerations:

The apparent most reliable source for Alaska Native population projections through 1980 is the Alaska Area Native Health Service. At the time of this report, the projections cited here have not yet appeared in public information publications prepared by the agency. The AANHS figures appearing on the various tables are obtained from an in-house document made available for use in this study. Projections of Alaska population through 1980 were not available from the BIA in a fashion comparable to the data received from AANHS for the years 1979 and 1980. Using the available annual estimates from the BIA for the years 1975 through 1978, it was possible to derive a mean average increase in Native population appropriate for application in extrapolating total Alaska Native population for 1979 and 1980 at 4.5% per year. These projections appear on Table 18 and afford a mean Alaska Native population estimate for the years 1976 through 1978 with AANHS projections being applied for 1979 and 1980.

Table 18 suggests that the proportion ratio of Alaska Native : non-Native civilian population has not changed substantially since 1975 (4, p. 33). Caution is in order, however, when these figures are applied in estimating Alaska Natives working age 18 through 64 available for employment. Concensus is notable throughout official and authoritative documents that the Alaska Native population has maintained the youthful characteristic demonstrated in the 1970 Census, with approximately

one-half the population being aged 18 and younger. Pending different demonstration through the 1980 Census, it is generally believed the youthful characteristic holds true. Where a difference is expected is that the aged 16 through 45 portion of the Native population will expand and will probably reflect a higher education attainment level and larger portion of youth and young adults in school, vocational training, or employed for substantial portions of time than was reported in the past.

It is the considered opinion here--shared by others who specialize in Alaska population and demography--that the 1970 Census data is no longer valid as the sole basis upon which to rest extrapolations for either the general or the Alaska Native population to obtain estimates for 1978 and 1980. Since the late 1960's, the State of Alaska has applied several statistical models in estimating and reporting state population, work force, labor force, employment, unemployment, and manpower utilization. Of those in use, some (like A Forecast of Industrial and Occupational Employment in Alaska (1974)) rely on computer programmed projections that include predictive factors having to do with starting and completion dates for heavy construction projects that were subsequently delayed, postponed, or in some way substantially altered. The result is that projections made in this fashion cannot simply be backdated to conform with completion of the oil pipeline (for example) because the various predictive factors are interdependent and one change will affect other vital factors accordingly. In recent years the Alaska Department of Commerce

has come to the forefront with quarterly reports titled The Alaska Economic Information and Reporting System (AEIRS). Under the direction of the Department's Principal Economist, Dr. Reaume, reports and projections of population, labor force and employment are compiled through a conservative economic model programmed responsively for adjustment to recently reported conditions related to employment and work force characteristics. This model has been selected for the general population and work force estimates and projections appearing in the summative comparative tables because it does not forecast start of full-scale construction of the gas pipeline before 1980, and the estimates through 1977 postdate completion of the oil pipeline. In the numerous reports reviewed in compiling the information appearing in these pages, no other single authoritative or official report was located which was believed to be more valid, reliable, or reasonable for purposes here than the April 1978 Quarterly Report published by AEIRS and adjusted for military population estimates as supplied by Dr. Reaume (25 and 17).

The 1970 Census serves to provide baseline estimates for the Alaska Native population as of that year. Subsequently, it has been noted that at least two Native Villages were omitted and one seriously underenumerated in reporting detail characteristics of the 1970 Alaska population. Two federal agencies (the BIA and the AANHS) in the course of their responsibilities are required to maintain the equivalent of annual estimates for the Alaska Native population and certain of its characteristics

needed for federal reporting purposes. Statisticians in both agencies derive estimates from various avenues available, including Census reports. Since Native population estimates from these two agencies are officially recognized by the State and Federal Governments (and compiling these estimates is an established routine practice of the agencies), these agency figures are used here for estimating the Alaska Native population in lieu of 1970 Census extrapolations unless otherwise noted. Tables 19 and 20 depict a best judgment comparison of Alaska/Alaska Native population and work force estimates for the years 1975, 1978, and 1980 without attempting to predict the assured increase in general population if the gas line construction should begin before 1980.

Although it is generally recognized that the Alaska Native population growth and age group distribution holds strong parallels for those of developing nation populations, it is remarkable that the estimates shown on Table 20 indicate that the Native/non-Native civilian population ratio from 1970 to that predicted for 1980 has been reduced by only .6% (18.7 vs. 18.1)—a much less proportional disparity than has been generally anticipated. In part, this may be due to a general reduction in the military population and attendant families since 1970 and less permanent in-migration of general population than was projected by the State prior to 1976. It is interesting to note that the Alaska Native population comprised almost 19% of the resident civilian population in 1970, dropped to 16.5% in 1975 and 1976 at the height of pipeline construction, and current State and Federal Alaska estimates indicate an

expected increase in Native/non-Native resident population to 18.1% by 1980 if the trans-Alaska gas line construction is not begun before that date.

Tables 21 and 22 serve to illustrate difficulties encountered in an attempt to describe where the Alaska work force is concentrated when translated in terms of labor market and worker supply and demand. Table 23 illustrates distribution of work force members in terms of labor market areas--major population centers where full-scale ADOL job service centers are located and the preponderant land mass, the Balance of State work force, where only limited job services facilities are available. Tables 23 and 24 afford a comparison that may be helpful to those seeking to conform various population and work force data in a uniform approach for problem solving or decision making. The labor market estimates for racial minorities and woman are based on data recorded by the major urban centers serviced by ADOL. The data for the Alaska Native work force stem from estimates of Native clients served by a given BIA agency within the state. The data appearing on the tables have been conformed insofar as is reasonable to the geographic service areas. Taken together, it appears obvious that ADOL and the BIA (or the Native Regions and Metlakatla Reserve, as delegated by the BIA) employment service facilities are required in employer efforts to maximize Alaska Native hire and associated job training (Table 24).

Table 19 suggests that the Alaska Native work force has increased in proportion to the total Native population almost 5% between 1975 and 1978. The estimated increase in actual numbers reflects approximately 5,000 persons (about 1,400

women) over age 16 who entered the work force for some period of time during the intervening three years. It is useful to note, however, that on the basis of age groups within the total Native population, although the Alaska Native work force estimate jumped from 24.6% in 1975 to 29.8% in 1978, the estimated age 18 through 64 total Alaska Native population jump from 49.3% to 56.6% in the same years is projected to decrease to 55.5% of total Native population by 1980. It seems apparent from the sources cited for Native population data that natural increase emanating from now maturing youth will sustain the historically low median age (approximately 18.9 years) 1970 characteristic through the 1980's. These percentages serve to underscore the youthful nature of the Alaska Native population and emphasize the need to recognize the implications this holds for careful development of Alaska Native manpower and the utilization of the Native work force now and in the foreseeable future.

Tables 24 and 25 draw upon the most recent data available from the state describing quantitatively minorities in the Alaska work force by labor market and balance of state areas. The data is qualified by acknowledgment that some of the percentages used are those directly reported by the 1970 Census. Furthermore, the data is for 1976 and it is not stated if it is annual average or as of a given quarter. For purposes here, it is assumed to be annual average. The information appears here since it does provide a guideline profile of labor market worker concentration and geographic distribution of the work force that in general (if not numerical) nature is not expected to change substantially in the foreseeable future.

ADOL Supplemental Information

Subsequent to the survey of all known official and/or authoritative Alaska population and work force information resources and the collection, treatment, and compilation of results from these procedures, the Alaska Department of Labor released a special publication, Alaska's Economic Outlook to 1985 (Including Capital Move and Gas Pipeline Scenarios). Included in the purpose for compiling the information appearing herein is to include pertinent information up through the latest date reasonably possible. Since the information appearing in the document named above expands and contributes to data and information already compiled and prepared for publication in this report, portions of information bearing directly on considerations here are included as an insert that may be applied as supplemental material for the previously completed tables and charts and further expands on information appearing in Addendum H. The population estimates appearing in Addendum H citing three oficially recognized State sources may now be compared with the ADOL employment data shown below since it is reasonable to expect that similar data from the same source will meet basic criteria for statistical comparison purposes.

Alaska population and work force data applied in this report utilize information compiled and reported through the Alaska Department of Commerce and Economic Development AIERS statistical model for establishing reasonable and acceptable Native/non-Native proportional estimates for the 1978 through 1980 Alaska population and work force. AIERS data have been selected because they are derived on the basis of

a realistic assumption that the impact of demand upon the Alaska work force (including the Alaska-Native component) to meet needs in labor-intensive heavy construction projects like the trans-Alaska gas line or capital move will not occur until 1980.

The recently released ADOL special report forecasting employment in Alaska through 1985 now provides baseline status quo estimates based on the same assumption. For practical purposes of gaining a more comprehensive understanding of contemporary patterns of Alaska/Alaska Native manpower and work force utilization, the numerical differences between ADOL and AIERS 1978 and 1980 estimates of employment are not particularly noteworthy. A major consideration, however, is found in both ADOL and AIERS forecasts that non-agricultural employment is shown to escalate between 1977 and 1980 without any singular large-scale labor-intensive heavy construction projects. Presuming the momentum of EEO employer affirmative action practices and Alaska Native Region internal demand for employment is maintained at levels demonstrated from 1974 through 1978, the issues and concerns related to development and utilization of Alaska Native manpower as described by interpretation of currently available pertinent data become demonstrably timely and significant. Forecast of employer demand for workers in Alaska becomes important when it is recognized that out-of-state workers can be expected to assure that the total demand for an Alaska work force will be met, but Alaska Native workers can participate in the work force only to the level actual extant numbers and community survival will allow.

Alaska employment growth rate per year forecast at status quo is predicted by ADOL to increase over 1977 figures as follows*:

1978	+ 0.75%
1979	+ 4.60%
1980	+ 5.50%

A substantial but unknown portion of the Alaska Native work force is known to be regularly/periodicially employed in occupations associated with the construction industry. Available data indicate that approximately 10% of the Alaska Native work force was employed in construction of the trans-Alaska oil line during a major portion of the full-scale construction period. It is therefore relevant to note implications that may be drawn from the numerical estimates of employment supplied by ADOL, together with the proportion of work force to be engaged in construction related jobs and the effect this may have on the participation rate of Alaska Native workers in the full range of occupations available in the State.

Utilization of the Alaska labor force as forcast by ADOL(*):

Employment		Employment in Construction	Portion-Total
1978	165400	16600	10.0%
1979	173000	18300	10.6%
1980	182500	19200	10.5%

* Alaska's Economic Outlook to 1985 : Including Capital Move and Gas Pipeline Scenarios, Alaska Department of Labor Research and Analysis (prepared by J.E. Post, et al.), Juneau, July 1978, p. 36.

Given the assumption that AIERS estimates of work force allow for a smaller portion of military dependents in the total Alaska work force due to reduction in military forces stationed in Alaska, and ADOL estimates of civilian employment are not significantly affected by the reduction, the two data sources may be combined to provide useful information to be applied in estimating an acceptable numerical mean based on regular and routine manpower demands. This mean then incorporates the primary officially recognized state data sources that pertain to estimates for the size of the Alaska work force, employment demands, and for deriving proportions needed to estimate the Native/non-Native work force components under non-exceptional circumstances.

Comparison of selected ADOL and AIERS reported data shows:

	Work Force AIERS**	Employment AIERS	Employment ADOL*	Employment MEAN
1978	172600	156900	165400	161150 ± 3%
1979	187400	169400	173000	171200 ± 1%
1980	203700	184400	182500	183450 ± 1%

Due to the late arrival of the ADOL information appearing above, these data are not included elsewhere in this text. Either ADOL or AIERS data as given, or the derived mean may be applied in appropriate comparisons appearing herein without substantially altering the results or affecting interpretation and opinion as stated.

* Alaska's Economic Outlook to 1985 : Including Capital Move and Gas Pipeline Scenarios, Alaska Department of Labor Research and Analysis (prepared by J.E. Post, et. al.), Juneau, July 1978, p. 36.

** The Alaska Economic Information & Reporting System : Quarterly Report April 1978 (prepared by D.M. Reaume), Department of Commerce and Economic Development, Juneau, pp. 14-15.

TABLE 18

ALASKA POPULATION AND ALASKA NATIVE
POPULATION ESTIMATES
COMPARISON 1976 - 1980

	1976	1977	1978	1979	1980
Alaska Population[1,a]	402500	407000	409000	420600	434500
Resident Population (CPS Basis)	379800[2]	386100[2]	388100	399700	413600
Native Population					
BIA[3,b]	64710	70166	72004	75244	78630
AANHS[3]	60533	62742	65857	68044	71116
Mean Native Population (±5%)	62623	66454	68931	71644	74873
Mean Native Population, % Total	15.6	16.3	16.8	17.0	17.2
Mean Native Population, % Civilian	16.5	17.2	17.8	17.9	18.1

a) Military population estimate from Source 1 (20,900) applied for 1979 and 1980.
b) 1979 and 1980 derived on the basis of mean annual increase 1975 through 1978.

Compiled by: Human Environmental Resource Services, Inc.

Sources:
1. Alaska Economic Information & Reporting System, Quarterly Report, April 1978, pp. 13-14.
2. Not available from Source 1, obtained from Alaska Labor Force Estimates by Industry & Area, Annual Report 1975, p. 3.
3. Table 15.

TABLE 19

ALASKA NATIVE POPULATION AND WORK FORCE
ESTIMATES 1975, 1978

	1975				1978			
	T	%	M	F	T	%	M	F
Alaska Native Population	62726	100.0	33328	29398	72804	100.0	37928	34076
Alaska Native Work Force	15404	24.6	10472	4932	20521	28.5	12299	8222
Age 16+	34377	54.8	18644	15733	41699	57.9	22150	19549
Not Available/Work Force	13250	21.1	5088	8162	15287	21.2	5910	9377
Manpower	21127	33.7	13566	7571	26412	36.7	16240	10172
Not in Work Force	5723	9.1	3094	2639	5891	8.2	3941	1950
In Work Force	15404	24.6	10492	4932	20521	28.5	12299	8222
. . . . .								
Alaska Native Age 16+	34377	100.0	18644	15733	41699	100.0	22150	19549
Not Available/Work Force	13250	38.5	5988	8162	15287	36.7	5910	9377
Manpower	21127	61.5	13566	7571	26412	63.3	16240	10172
Not in Work Force	5723	16.7	3094	2639	5891	14.1	3941	1950
In Work Force	15404	44.8	10492	4932	20521	49.2	12299	8222
. . . . .								
Manpower Age 16+	21127	100.0	13566	7571	26412	100.0	16240	10172
Not in Work Force	5723	27.0	3094	2639	5891	22.3	3941	1950
In Work Force	15404	72.9	10492	4932	20521	77.7	12299	8222

Compiled by: Human Environmental Resource Services, Inc.

Source: Table 1 and BIA Report of Labor Force 1975-1978.

TABLE 20

ALASKA CIVILIAN AND ALASKA NATIVE POPULATION AND WORK FORCE ESTIMATES[a] 1975, 1978 AND 1980 - SUMMARY

	1975[1,d]				1978[b]				1980[2]			
	T	%	M	F	T	%	M	F	T	%	M	F
State Civilian Population[c]	379300	100.0	N/A	--	388100	100.0	N/A	--	413600	100.0	--	--
Alaska Native Population	62726	16.5	33328	29398	68931	17.8	36464	32467	74873	18.1	39608	35265
State Work Force	171000	51.9	N/A	--	160700	41.4	N/A	--	186200	45.0	--	--
Alaska Native Work Force	15404	4.7	10472	4932	20521	5.2	11841	8680	N/A	--	--	--
State Civilians Aged 18-64	N/A	--	--	--	--	--	--	--	--	--	--	--
Alaska Natives Aged 18-64	30924	9.3	16431	14493	39014	10.1	21380	17634	41550	10.0	31980	19570

a) ± 5% as appropriate when applied to numerical estimates.
b) Reflects annual averages.
c) See Table 3, sex ratios based on 1970 Census proportions.
d) Peak year of trans-Alaska oil line construction.

(N/A: "Not Available")

Compiled by: Human Environmental Resource Services, Inc.

Sources:
1. U.S. Census 1976 and BIA Report of Labor Force, May 1975.
2. Table 15, mean estimate (± 5%).

TABLE 21

RACIAL MINORITIES, WOMEN, AND ALASKA NATIVES IN THE WORK FORCE
AS REPORTED BY STATE LABOR MARKET SERVICE AREAS
AND BY GEOGRAPHIC REGIONS CONFORMED TO BIA SERVICE AGENCIES
ESTIMATES 1976[a]

	Work Force		By Labor Market Areas: Racial Minorities In Work Force		By Labor Market Areas: Women In Work Force		By BIA Agencies: Alaska Natives In Work Force	
	T	%	T	%	T	%	T	%
South Central	69631	43.8	4927	7.1	28994	41.6	5453	7.8
Interior	24121	15.2	1972	8.2	9640	40.0	2164	9.0
Southeast	28365	17.8	3719	13.1	10445	36.8	3503	12.3
Balance of State	36831	23.2	11065	30.0	12278	33.3	5394	14.6
STATE TOTAL[b]	158948	100.0[c]	21683	13.7	63357	39.9	16514	10.4

a) Most recent Labor Market Area estimates available in May 1978.
b) State totals are compatible reflecting 1970 Census proportions of approximately 3% Racial Minority other than Alaska Native in the work force.
c) Rounded.

Compiled by: Human Environment Resource Services, Inc.

Source: Tables 13 and 23

Note: Percent differences in distribution of racial minorities in work force by geographic region reflect differences in State and BIA administrative reporting procedures. Balance of State estimates by the Alaska Department of Labor include all rural communities not classified as "Labor Market Areas" by the Department. Geographic region estimates using BIA data conform with Native Region boundaries. See Maps 5 and 8 for further clarification.

TABLE 22

NATIVE WORK FORCE UTILIZATION
ON OIL PIPELINE CONSTRUCTION PROJECT
COMPARED ESTIMATES, FIRST QUARTER 1976 AND 1977

	1976		1977	
	#	%	#	%
Civilian Population[1,a]	371234	100.0	386452	100.0
Alaska Native Population[2]	64700	17.4	70166	18.2
Civilian Work Force[1]	154100	100.0	164900	100.0
Employed Civilian Work Force[1]	138500	89.9	147200	89.3
Alaska Native Work Force[2]	16514	100.0	18108	100.0
Employed Native Work Force[2]	11793	71.4	11090	61.2
Unemployed Native Work Force	4722	28.6	7018	38.8
Employed on Oil Pipeline Construction Project[3,b]	1515	9.2	142	.8

a) Military population subtracted according to estimated provided by Source 1.
b) Number employed as of January and February 1977.

Compiled by: Human Environmental Resource Services, Inc.

Sources:
1. Alaska Economic Information and Reporting System, Quarterly Report, April 1978, p. 13 (see a).
2. Report of Labor Force, Juneau Area BIA, March 1976 and March 1977.
3. Alaska Native Hire on the Trans-Alaska Oil Pipeline Project, ISER, Vol. XV, No. 1, Feb. 1978, p. 17.

Note: The .8% reported in February 1977 represents the lowest Native participation point that occurred as field construction phased out. Alyeska Pipeline Service Co. reports for the balance of 1977 and into 1978 reflect substantially higher Native employment participation largely associated with the operational construction phase for the trans-Alaska oil line project (17).

TABLE 22-A

NATIVE WORK FORCE UTILIZATION
ON OIL PIPELINE CONSTRUCTION PROJECT
COMPARED ESTIMATES, FIRST QUARTER 1976 AND 1977

	1976		1977	
	#	%	#	%
Civilian Population[1,a]	371234	100.0	386452	100.0
Alaska Native Population[2]	64700	17.4	70166	18.2
Civilian Work Force[1]	154100	100.0	164900	100.0
Employed Civilian Work Force[1]	138500	89.9	147200	89.3
Alaska Native Work Force[2]	16514	100.0	18108	100.0
Employed Native Work Force[2]	11793	71.4	11090	61.2
Unemployed Native Work Force	4722	28.6	7018	38.8
Employed on Oil Pipeline Construction Project[3,b]	1515	9.2	142	.8

a) Military population subtracted according to estimated provided by Source 1.
b) Number employed as of January and February 1977.

Compiled by: Human Environmental Resource Services, Inc.

Sources:
1. Alaska Economic Information and Reporting System, Quarterly Report, April 1978, p. 13 (see a).
2. Report of Labor Force, Juneau Area BIA, March 1976 and March 1977.
3. Alaska Native Hire on the Trans-Alaska Oil Pipeline Project, ISER, Vol. XV, No. 1, Feb. 1978, p. 17.

Note: The .8% reported in February 1977 represents the lowest Native participation point that occurred as field construction phased out. Alyeska Pipeline Service Co. reports for the balance of 1977 and into 1978 reflect substantially higher Native employment participation largely associated with the operational construction phase for the trans-Alaska oil line project (17).

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ALASKA WORK FORCE/ALASKA NATIVE WORK FORCE
COMPARED ESTIMATES 1975 - 1978[a]

Alaska Work Force (100%)[1]	164800	154100	164900	160700
Native Work Force[2,a]	15404	16514	18101	20521
% Native Work Force	9.3	10.7	11.0	12.8
% State Work Force Unemployed[1,b]	10.5	10.1	10.7	9.4
% Non-Native Unemployed[2,a]	7.8	7.0	6.4	4.7
% Native Unemployed[2,a]	2.7	3.1	4.3	5.7

a) Based on first half year reported estimates
b) Annual average

Sources:
1. Alaska Economic Information & Reporting System, Quarterly Report, April 1978, pp. 14-16, except 1975 data.
2. Report of Labor Force, Juneau Area BIA, 1975-1978.
3. Alaska Labor Force Estimates by Industry and Area (Annual Report) 1975, p. 3.

TABLE 23

ALASKA PRINCIPAL LABOR MARKET AREAS
WORK FORCE ESTIMATES 1976[a]

	Anchorage Labor Market					Fairbanks Labor Market				
	Total	% State Population	% State Labor Force	M	F	Total	% State Population	% State Labor Force	M	F
	379800	100.0	43.8	N/A	N/A	379800	100.0	15.2	N/A	N/A
Labor Force	69631	18.3	43.8	40637	28994	24121	15.2	15.2	14481	9640
White	64704	17.0	40.7	38239	26465	22149	13.9	13.9	13603	8546
Black	2127	.6	1.3	971	1156	862	.05	.05	356	506
Other[b]	2800	.7	1.8	1427	1373	1110	.07	.07	522	588
Racial Minority	4927	1.3	3.1	2398	2529	1972	1.2	1.2	878	1094
Spanish Speaking	1434	.4	.9	645	789	513	.01	.01	307	206
Minority Group	6361	1.7	4.0	3043	3318	2485	1.2	1.2	1185	1300
Women	28994	N/A	41.6	--	28994	9640	N/A	6.1	--	9640
	Juneau, Ketchikan, Sitka, Kenai, Cook Inlet, Kodiak Labor Market					Balance of State Labor Market				
	379800	100.0	17.8	N/A	N/A	379800	100.0	23.2	N/A	N/A
Labor Force	28365	7.5	17.8	17920	10445	36831	9.7	23.2	24553	12278
White	24646	6.5	15.2	15568	9078	25766	6.8	16.2	17461	8305
Black	246	.1	.2	116	130	230	.06	.1	156	74
Other[b]	3473	.9	2.2	2236	1237	10835	2.9	6.8	6936	3899
Racial Minority	3719	1.0	2.3	2352	1367	11065	2.9	7.0	7092	3973
Spanish Speaking	379	.1	.2	232	147	312	.01	.02	233	79
Minority Group	4098	1.1	2.6	2587	1511	11377	3.0	7.2	7325	4052
Women	10445	N/A	6.6	--	10445	12278	N/A	7.7	--	12278

Table 23, p. 2, Continued

	Total	% State Population	% State Labor Force	M	F
	Statewide Labor Market				
State Civilian Population	379800	100.0	41.8	N/A	N/A
Labor Force	158948	41.8	100.0	97591	61357
White	137265	34.5	86.4	84871	52394
Black	3465	.9	2.2	1599	1866
Other[b,c]	18218	4.8	11.5	11121	7097
Racial Minority	21683	5.7	13.7	12720	8963
Spanish Speaking	2638	.7	1.7	1417	1221
Minority Group	24321	7.3	15.3	14137	10184
Women	61357	N/A	38.6	--	61357

a) Source bases percentage distribution for 1976 on 1970 Census.
b) Includes predominantly Alaska Natives with limited numbers of Asian-Pacific or races other than Black or White.
c) Some Spanish speaking are non-White, so some duplication is probable. (N/A: "Not Available")

Compiled by: Human Environmental Resource Services, Inc.

Source: Labor Market Information for Affirmative Action Programs, 1976 (Anchorage; Fairbanks; Juneau, Ketchikan, Sitka, Kenai, Cook Inlet, Kodiak); State Alaska Department of Labor, most current issue available, May 1978.

TABLE 24

STATE OTHER[a] MINORITY WORK FORCE AND
BIA WORK FORCE
ESTIMATES 1976

	State[1] Work Force Other	BIA[2] Native Work Force
SOUTHCENTRAL (Anchorage, Kenai, Cook Inlet Area)	3897	5453
INTERIOR (Fairbanks Area)	1110	2164
SOUTHEAST (Juneau, Ketchikan and Sitka Area)	2374	3503
BALANCE OF STATE (Northwest, Southwest and Kodiak)	10837	5394
% OTHER[a] MINORITY	100.0	91.9
TOTAL	18218	16514

a) "Other" includes predominantly Alaska Natives with limited numbers of Asian-Pacific or races other than Blacks or Whites. Alaska Natives are not reported separately by Source 1. The differences between "Other" and BIA Work Force Members as reported equals 1704, or 9.4% of "Other" as shown by Source 1.

Compiled by: Human Environmental Resource Services, Inc.

Sources:
1. Labor Market Information for Affirmative Action Programs, 1976, Alaska Department of Labor.
2. Report of Labor Force, March 1976, Juneau Area BIA.

TABLE 25

NATIVE POPULATION/NATIVE WORKERS AGE 16+ BY PERCENT OF NATIVE POPULATION
1973 - 1978[a]

	Percent of Total						4-Year Mean
	1973	1974[c]	1975	1976	1977	1978	
Total - 100%	61026	N/A	62726	64710	70166	72004	100.0
M	52.9	--	53.1	52.9	52.5	52.7	52.8
F	47.1	--	46.9	47.1	47.5	47.3	47.2
6-Year Change		T =4.5% + / .2%- M / 4.8% + F					
Age 16 +	52.3	--	54.8	55.2	56.2	57.9	56.0
M	27.5	--	29.7	29.9	30.2	30.8	30.2
F	24.8	--	25.1	25.3	26.0	27.1	25.9
6-Year Change		T = 5.6% + / 3.3%+ M / 2.3% + F					
Manpower 16 +	32.6	--	33.7	33.9	34.3	36.7	34.6
M	20.0	--	21.6	21.7	21.5	22.5	21.8
F	12.6	--	12.1	12.2	12.8	14.1	12.8
6-Year Change		T = 4.1% + / 2.5% + M / 1.5% +F					
Age 16 + Not Available to Work Force	19.7	--	21.1	21.3	21.9	21.2	21.4
M	7.5	--	8.1	8.2	8.7	8.2	8.3
F	12.2	--	13.0	13.1	13.2	13.0	13.1
6-Year Change		T = 1.5% + / .7% + M / .8% + F					
Work Force Age 16 +	19.4	--	24.6	25.5	25.8	28.5	26.1
M	13.5	--	16.7	17.3	17.2	17.1	17.1
F	5.9	--	7.9	5.4	8.6	11.4	8.3
6-Year Change		T = 3.9% + / .4% + M / 3.5% + F					

Table 25, p. 2, continued

	Percent of Total						4-Year Mean
	1973	1974[c]	1975	1976	1977	1978	
Age 18 through 64	N/A	--	49.3	49.7	50.3	51.3	50.4
M	--	--	25.1	25.3	25.4	25.3	25.5
F	--	--	24.2	24.4	24.9	26.0	24.9
4-Year Change			T = 1.5% +/ .7% + M / .8% + F				
Seeking Work Age 16+	7.2	--	7.2	7.3	10.0	12.8	9.3
M	4.8	--	4.7	4.8	6.5	8.2	6.1
F	2.4	--	2.4	2.5	3.5	4.6	3.2
6-Year Change			T = 5.6% +/3.4% + M / 2.2% + F				

a) Low work force demand spring quarter data.
b) Derived on basis of 1975 population, see Table 14
c) BIA data incomplete for 1974.

(N/A: "Not Available")

Compiled by: Human Environmental Resource Services, Inc.

Source: Report of Labor Force, Juneau Area BIA 1973 - 1978.

Summary of General Data Considerations

The purpose of this report is twofold: 1) to update previous research by the author titled Alaska Native Population and Manpower: 1975; and (2) to sustain progressive momentum in a long-term study of the practical implications associated with Alaska Native human resource potential and modern adaptations in utilization of Native manpower. The results of this 1978 investigation have produced new data derived from the same authoritative and official sources and post-1975 estimates obtained by applying methodology in keeping with the parent study. A summary of the results of data collection and treatment, together with the opinion reached regarding analysis and interpretation of these results follow.

One noteworthy change in the finalized data summary appearing in the 1975 report is that the then expected total population growth anticipated by the state did not materialize in keeping with the forecast schedule. In turn, this altered an opinion reached in the 1975 study that the non-Native/Native population ratio would be substantially lower in 1980 than in 1970. The results of this study strongly suggest that this will not, in fact, be true. Essentially, other opinions stated in the 1975 study seem to remain unchanged.

The U.S. Census data for Alaska since 1960 holds several qualifying considerations:

- The total population of Alaska is generally underestimated, particularly categorically and in detail characteristics for Alaska Natives.
- The growth of total state population through in-migration is accelerating and substantial. The growth is significant in terms of extremely low per capita geographic distribution, with population density increasing most

significantly in the few extant largest centers of urban population. Within the overall pattern of sustained growth, however, the total resident population fluctuates seasonally, as does the concentration or distribution of year-round population within the state.

- The military population (personnel and dependents) is a substantial portion of the total population, but varies significantly between Census reports. It is known to show a major decline since 1970 (approximately 20 to 30%), but is currently believed to remain about the same number from 1977 through 1980.

- Due to a significant but constantly changing rate of in- and out-migration, statistical procedures commonly applied successfully in states with characteristically large, stable populations and/or predictable population features (age groups, birth and mortality rates, sex/race ratios) have not proved to be reliable when applied to the general Alaska population.

- The Alaska Native population, when given the nature of its known particular characteristics and physical limits, can be subjected to analytical and predictive statistical measures to obtain reasonable and acceptable estimates of total population by age/sex group ratios.

- The 1970 Census is known to have excluded Napasikak and Northway Indian Villages, and to have collected no detailed vital data for some 4,415 individual Alaska Natives reported for the 1970 Alaska Census. In terms of total Native population estimates, these oversights have statistical significance.

Fortunately, the BIA and Alaska Area Native Health Service are charged with responsibilities requiring them to maintain estimates of the Alaska Native population and certain of its characteristics on an annual basis. These data are available and serve as a reliable official source for deriving estimates as reported here. Each of these agencies report data by geographic administrative subdivisions that can frequently be conformed within reasonable tolerance limits to other data for the general population through data made available periodically from state and federal sources. Alaska Native Enrollment data stemming from stipulations of the Settlement Act reflect only eligible Native persons who were alive as of December 18, 1971. The data do not include Natives of Tsimshian Indian descent (members of Metlakatla Indian Community). Enrollment data, therefore,

> do not include the total Alaska Native population. Periodically, enrollment data are made available showing the number of living enrollees, together with limited data regarding age, sex, and place of residence. This information is useful for verifying aspects of Native population estimates from other sources, but is insufficient to provide an accurate and reliable basis for estimating characteristics or proportions of the total contemporary Native population residing in Alaska.

To obtain current estimates expected to be generally acceptable as reasonable and accurate by those knowledgeable about the Alaska Native population and general population, it is necessary to turn to state and federal sources other than the U.S. Census and Settlement Act Enrollment data. These sources include the aforementioned federal agencies plus various departments within the State Government--most notably the Alaska Departments of Labor and/or Commerce and Economic Development.

The one outstanding characteristic of the Alaska general population is sustained but seasonally fluctuating growth. Apparently this growth applies to an increase in all federally recognized racial minorities as well. Estimates of proportional growth of non-Native minority groups vary, with the interested agencies placing heavy reliance in reporting upon estimates from officially recognized agency subdivisions operating in the largest centers of population where minorities other than Alaska Natives appear to be concentrated. It can be stated with confidence that the total population growth rate in Alaska is exponential and depends upon economic factors as much as social conditions. Different econometric statistical models have been applied by the

state in formulating population projections through 1980 and beyond. Some have not withstood the test of time and reality. The AEIRS reports available from the Alaska Department of Commerce rely upon a sophisticated statistical reporting procedure encompassing actual post-oil pipeline construction population and work force impact factors when predicting population and work force increase. AEIRS presently does not include assumptions regarding employment demand or population increase that may be generated by construction of the trans-Alaska gas line. Since baseline data for AEIRS projects are drawn in part from Alaska Department of Labor after-the-fact statistical reports, the population and work force information supplied through AEIRS statistical data is believed to be as current, accurate, and reasonable as any that may be available from various official sources. AEIRS general population and work force data appear here as a baseline source unless otherwise noted.

Results of this 1978 study indicate that there is sufficient evidence available to demonstrate that:

- The general Alaska population does not reflect the total growth predicted in the early 1970's, but it continues to maintain a historic pattern of rapid overall growth with seasonal fluctuations and growth spurts following the impact of major economic development projects (like the trans-Alaska oil line).

- The general work force, when allowance is made for the temporary peak during oil line construction, continues to expand at a significant annual rate. The demand on the Alaska work force has remained strong in spite of pre-1975 expectations to the contrary. Given the seasonal nature of demand, unemployment following the pipeline project completion has not apparently materialized to the extent predicted in the mid-1970's.

- Present data are insufficient to estimate reality with confidence in terms of percentage or numerical ratio, except for Alaska Natives, in relation to the general population regarding unemployment among the employable for federal target minorities. Other than for those who are acknowledged by group identification in estimates appearing in ADOL 1976 minority estimate booklets prepared for affirmative action employers (drawing upon 1970 Census work force racial ratios), little current reliable data are available for non-Native minorities and women potentially available to, or included in, general Alaska work force estimates.

- From January 1974 through February 1977, 5,724 individual Alaska Natives were employed on the trans-Alaska oil line construction project. Some worked less than one week and others worked virtually the entire construction period. Of the latter, the majority were salaried rather than job-term contract employees. The largest number of individual Natives employed on the oil line construction project were working during the third quarter of 1974 through the third quarter of 1976--a period of approximately 27 months. During this time, the number of employed Natives per quarter ranged from a little over 1,100 to a high of 2,200 in mid-1975. An average of 1,500 individual Natives were employed per quarter during the peak 27-month employment period. Real impact on the Native work force appears to have begun the second quarter of 1974 when 715 Natives were employed on the project. From the third quarter of 1974 a minimum of more than 1,000 Natives were employed during each quarter until the third quarter of 1976. During the peak quarter of construction (July through August 1975), nearly 2,200 Alaska Natives were working on the project under a wide range of occupational and skill classifications.

- Data are presently insufficient to suggest how many of the Alaska Native workers who benefited from training and experience gained on the oil line construction are available to labor intensive heavy construction project contract employers. These are the same individuals who benefited from training and experience gained on the oil line construction. The expressed concern of Native leadership that Native workers who did gain union membership or accomplish recorded occupational skill levels remain identified in order to receive immediate notification in the event of new, major, heavy construction project starts seems both well founded and reasonable. Presently no estimates are available, and none are known to be forthcoming, to provide information regarding just how many individuals there are to whom this condition may apply; nor are there any data available to suggest where these workers with pipeline experience or construction occupational training

> are most likely to be located. What can be safely assumed is that Alaska Native workers who are most likely to be available for statewide recruitment with oil pipeline construction experience will be predominantly men of prime working age between 18 and 45.

It is recognized that Native worker demand for Region internal purposes varies from Region to Region, as it does among Villages and in response to local seasonal and subsistence labor demanding activities. It appears evident, however, that Region internal Native employment demand shows an annual increase since the early 1970's. CETA generated employment helps to support local work force demand in keeping with policies intended to upgrade the local labor force and to meet stable long-term anticipated local and state work force needs. It appears equally evident that Alaska Native workers will respond in substantial numbers to intensive systematic statewide recruitment for short-term job contract employment. The employment period duration of individuals through a series of job-term rehires cannot be assessed solely on the basis of the oil line project data. There is, however, no similar data to suggest the pattern recorded from that experience will be different for another relatively similar situation. Based on the limited evidence from one labor-intensive project, it would appear reasonable that in the forthcoming years, approximately 1,500 Alaska Natives can be expected to be available for recruitment on a single construction project of the magnitude of the Alaska oil line at some single point in time. This would be true regardless of other considerations.

Results of data treatment and analysis for this study demonstrate the following:

	1978		1980	
	Total (± 5%)	%	Total (± 5%)	%
Civilian Population	388100	100.0	413600	100.0
Civilian Work Force	160700	45.1	186200	41.1
Alaska Native Work Force	20521	5.2		
. . . . .				
Alaska Native Population	68931	100.0	74873	100.0
Aged 18 through 64	39014	56.6	41550	55.5
. . . . .				
Alaska Native Population				
Aged 18 through 64	39014	100.0	41550	100.0
Men	21830	56.0	21980	52.9
Women	17634	44.0	19570	47.1

Data are not sufficient to derive estimates for the male : female ratio for the civilian population and work force in 1978 to be projected for 1980. Data are also not sufficient to estimate the non-Native age groups 16 + or age 18 through 64 for either of these years. Thus, no reasonable comparisons can be drawn to gain this type of information. The most recent data that are available for the male : female ratio in the Alaska work force, as well as racial minorities, is dated 1976 (see Table 23). The only data available for utilization of the Alaska Native work force is not an annual average, but a report estimating the number employed and the number unemployed and seeking work as of the first calendar quarter reporting period for 1975 through 1978. (No other Native work force data is available.) In the

absence of other data, these are used as reasonably acceptable data for the Alaska Native work force and serve to suggest the annual lowest point of demand upon the Native work force and the highest regular annual average available supply.

The utilization of the Native work force on the basis of the four-year mean suggests that 36.1% of the Native work force is unemployed and seeking work during the low Alaska work force demand months (the first calendar quarter). It is doubtful that summer season youth and parents temporarily freed from child care while school is not in session will substantially change this estimate on an overall annual basis. When this is translated in terms of numerical estimates, the result is a mean average for 1974 through 1978 of 6,366 persons (±5%) or 16.3% of Alaska Natives over age 16 as being consistently reported unemployed and actively seeking work from throughout all 12 Native Regions.

Charts K through P demonstrate graphically the growth in the general Alaska population and work force and particularly illustrate the changing distribution of age 16+ Alaska Native population within the 12 Native Regions since 1975. Two conditions affecting description of utilization of Alaska Native manpower and the Native work force are made more clearly visible by these charts than is immediately apparent from the figures alone.

Chart M illustrates the effect the military personnel stationed in Alaska has on total population enumeration. Dependents accompanying military personnel are counted among the civilian population. In 1975 the military accounted for about

6.3% of the total Alaska population. An estimate of dependents for that year is not readily available. In 1976, 22,766 (5.6%) military personnel were reported, with 28,715 (7.0%) dependents, for a total of 12.6% of the estimated July Alaska total population. In 1977, 20,948 (5.1%) military personnel were stationed in Alaska, with 26,992 (6.6%) dependents for a total of 11.7% of the estimated July population. According to public record, military personnel stationed in Alaska will not be increased before 1980 (excepting national emergency), and some decrease is expected to continue. Lacking other data, the 1977 figure for military personnel has been applied in projections used here. The important factor associated with military and dependents in the total Alaska population is that for every 100 military personnel stationed in Alaska, there are approximately 126 dependents included in the state civilian population. An indeterminant numer will be employed wives, older children and other relatives. In forecasts of population emanating from state sources during the mid-1970's, projects of total population growth for the state included a relatively stable military factor of 26,500 military, with 29,600 dependents (31, p. 13). According to 1978 state sources, these figures have been reduced by about 5,500 and 2,600, respectively. By applying the 1 : 1.25 ratio of military to dependents to the 1975 through 1977 Alaska population, the apparent result is that the state population continues to grow rapidly in spite of a substantial reduction in the number of military with dependents stationed in Alaska. The state population

numerical growth may not be as large as previously forecast, but the growth in civilian population (except for military dependents) has been in keeping with the earlier predicted incline.

In the mid-1970's, the state was forecasting an estimated total population of 506,400, with a civilian labor force of 225,300 by 1980 (31, p. 42). This projection was predicated on peak impact of the trans-Alaska oil line construction project being in 1976, and the trans-Alaska gas line construction peak employment to be in 1978 (31,p. 32 and p. 16). Present state forecasts now allow for after-the-fact effect of oil line construction and do not include start of field construction for the gas line project. The results forecast a total population of 434,500, with a labor force of 203,700 by 1980 (25, p. 15). The substantial reduction in projected population and work force numerical estimates are reasonable and necessary in light of recently disclosed realities affecting Alaska population growth like military reduction, delay in completion of the trans-Alaska oil line field construction, and present predictions that full-scale construction of the gas line will not begin until late 1979 (17).

After the 1970 Census and well into mid-decade, socio-economic research dealing with the Alaska Native population noted that the population of the Southwest region (Bristol Bay and Calista Native Regions) was declining although the Native work force remained relatively constant. The Northwest region (Arctic Slope, Bering Straits, and NANA) Native population showed little change, with the number

of persons in the Native work force relatively unchanged in the five geographic regions of the state except for Southeast (Sealaska Region) where a marked increase occurred between 1974 and 1975. Figures using the same source data (BIA) extended through 1978 (as illustrated on Chart O) produce some notable changes in direction of total Native population distribution as well as those in the work force and those over age 16 years by area of residence.

Between 1975 and 1978 all geographic regions show substantial expansion in the over age 16 portion of Native population. All regions except South Central (Anchorage BIA service area) show a relatively proportional growth in the local Native work force. Between 1975 and 1978 Anchorage reports a drop in the Native work force of more than 450 persons, while the over age 16 Native population increased by nearly 2,000. Of immediate interest is that an apparent declining trend of the Native population in the Southwest Region while the Native work force remained relatively numerically stable appears to have reversed after 1975, with population, the over age 16, and the work force all showing a substantial increase. Since it is recognized that extensive employment opportunities for Alaska Natives (as compared to the past) have been developed in this Region, empirical evidence is afforded for some reasonable conclusions about Native manpower and work force utilization. The evidence gains strength when it is also recognized that all of the Native Regions within the geographic regions are enabled through various appropriate congressional acts to create and develop local Region employment opportunities,

but the South Central Region is the most limited in terms of numer of rural Native Villages where jobs can be created for permanent Village residents. The past four-year change in Native population and work force distribution statistics support an opinion that (a) Alaska Natives seeking work on a statewide basis tend to congregate where employment opportunities and/or facilitators are known to exist; and (b) that socio-economic development and enforced change as mandated by appropriate congressional acts have enabled Alaska Natives to exercise individual and group choice in utilizing Native manpower resources in local rural employment to a now visible extent. That is, options for employment, educatian, training, and lifestyle that are open to individuals, Villages, and incorporated Native ogranizations can presently be exercised more freely than was realistically possible in the past. There can be little question that Alaska Natives, with strong Village ties, are retaining those ties by seeking local rural area and Village employment when it is available.

This latter conclusion should not be particularly surprising considering that presently some 800,000 American Indians in the U.S. actively self-identify by tribe, with about 500,000 Indians living in accordance with traditional lifestyles and values in spite of more than a 300 year history of intensive attempts to exterminate or acculturate families and communities (34). Alaska Natives have known general enforced change by a dominant Western society for only about 100 years. There are still a few persons living who can remember the first time a non-Native was seen in their Village area (17). Attrition from the Villages to the metropolitan areas

through acculturation can be expected to continue to some degree parallel with the past, particularly as demonstrated since the mid-1940's. There can remain little question, however, that equal opportunity goals and objectives affecting utilization of Alaska Native manpower must take into account both visible and invisible societal factors within the organized and incorporated Alaska Native Regions that support present enablement of Alaska Natives to exercise cultural self-determination as individuals or members of Villages or Region non-profit corporations.

TABLE 26

MAXIMUM ALASKA NATIVE
POPULATION/MANPOWER/WORK FORCE
MEAN ESTIMATE 1978 - 1980

	1978		1980	
	T	%	T	%
Alaska Native Population				
BIA	72004	--	78630[a]	--
AANHS	65857	--	71116	--
Mean (±5%)	68931	100.00	74873	100.0
• • • • • • •				
Mean Alaska Native Population[b]	68931	100.0	74873	100.0
Age 16 [c]	39911	57.9	43352	57.9
Total Manpower	5653	8.2	6140	8.2
Not Available	14613	21.2	15873	21.2
In Work Force	19645	28.5	21339	28.5
Females in Work Force	7858	11.4	--	--

a) Projected
b) (±5% applied as appropriate)
c) Based on 1978 population proportion

Compiled by: Human Environmental Resource Services, Inc.

Source: Table 25

TABLE 27

ALASKA CIVILIAN[1]
ALASKA NATIVE POPULATION[2] MANPOWER AND WORK FORCE[3]
1978 - 1980 ESTIMATE (±5%)

	1978		1980	
	T	%	T	%
Civilian Population[a]	388400	100.0	413500	100.0
Civilian Work Force[a] Age 16 +	172600	44.4	203700	49.3
Alaska Native Population	68931	17.7	74873	18.1
Work Force Age 16 +	19645	5.1	21339	5.2
Civilian Work Force Age 16 +	172600	100.0	203700	100.0
Alaska Native Work Force Age 16 +	19645	11.4	21339	10.5
Civilian Work Force Age 16 +	172600	100.0	203700	100.0
Work Force - Females[b]	63171	36.6	N/A	--
Native Work Force - Females[c]	7858	4.5	N/A	--

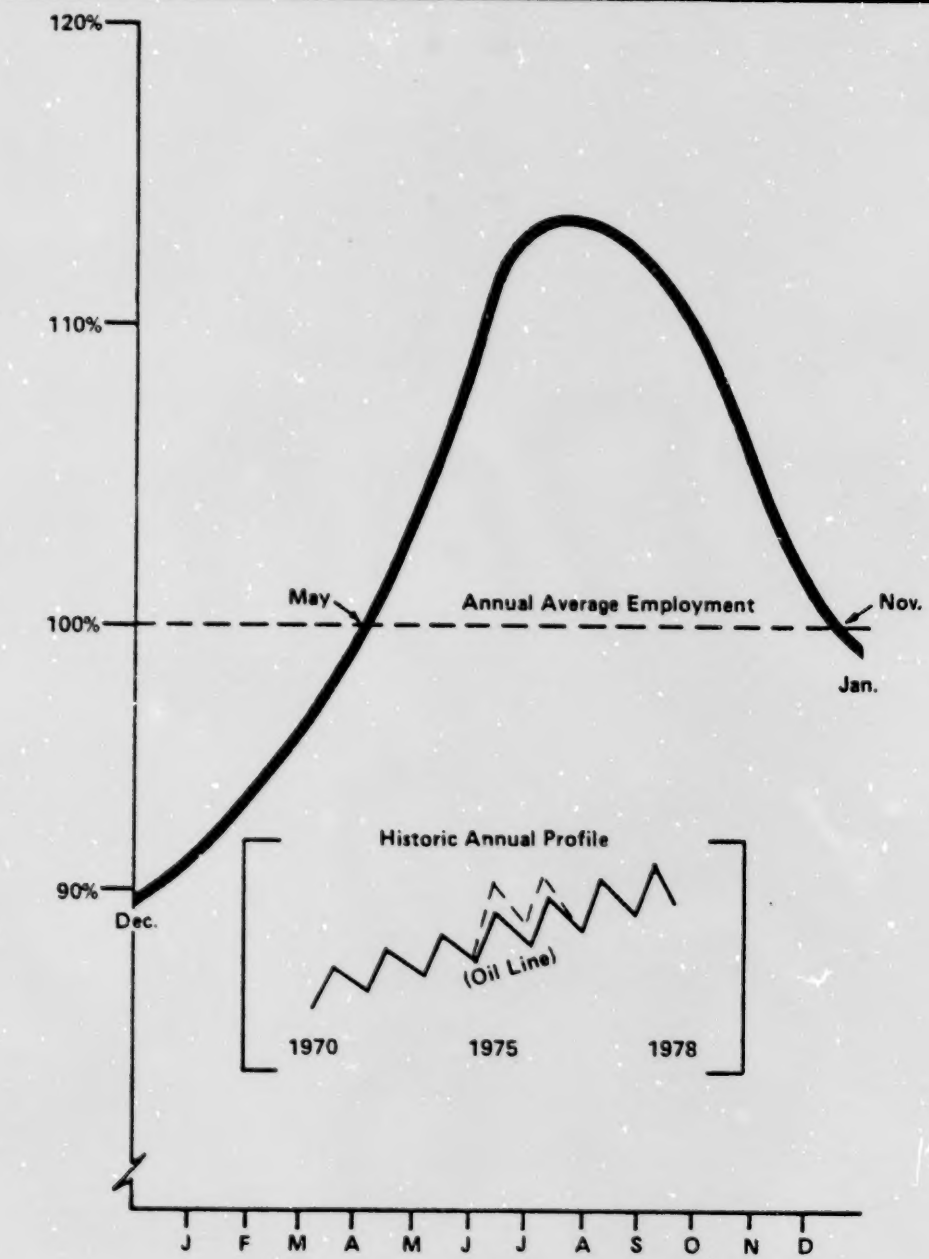
a) Annual Average Projection
b) Based on 1976 proportion
c) Based on 1978 proportion

(N/A: "Not Available")

Compiled by: Human Environmental Resource Services, Inc.

Sources:
1. See Table 18, Table 23, and Table 26.
2. Derived mean BIA and AANHS data, see Table 25, derived mean, see Table 15.

CHART E
CHARACTERISTIC SEASONAL PROFILE OF ALASKA EMPLOYMENT
SHOWING EXPANDED ANNUAL TOTAL INCLINE
1970 - 1980[a]

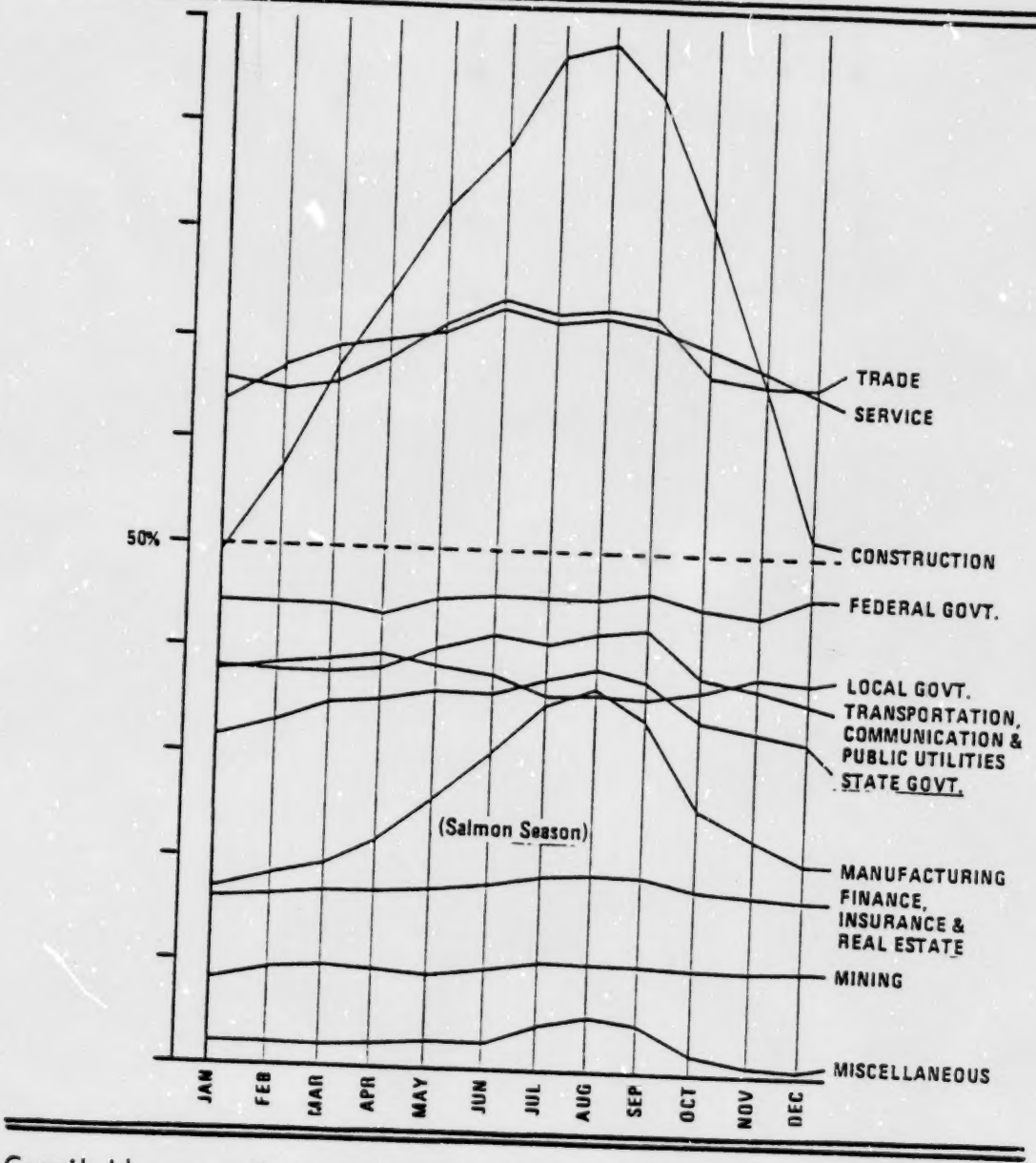


a) Based on pre-oil pipeline/post-pipeline/pre-gas line normal demand.

Compiled by: Human Environmental Resource Services, Inc.

Source: Alaska Department of Labor (after Alaska Business Trends 1978: Economic Forecast), Alaska Pacific Bank, pp. 31 and 32.

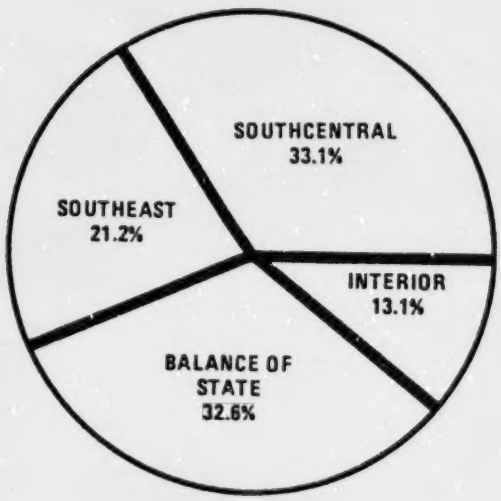
CHART F
ANNUAL CYCLE OF ALASKA INDUSTRIAL EMPLOYMENT
1978 - 1980



Compiled by: Human Enviromental Resource Services, Inc.

Source: Alaska State Manpower Review, March 1977 (after pp. 19-20).

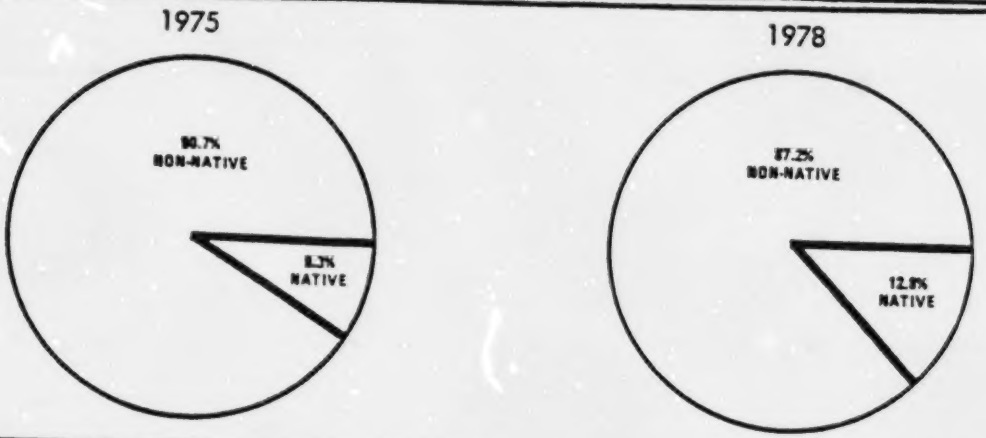
CHART G
ALASKA LABOR MARKET/WORK FORCE DISTRIBUTION 1976



Compiled by: Human Enviromental Resource Services, Inc.

Source: Table 21.

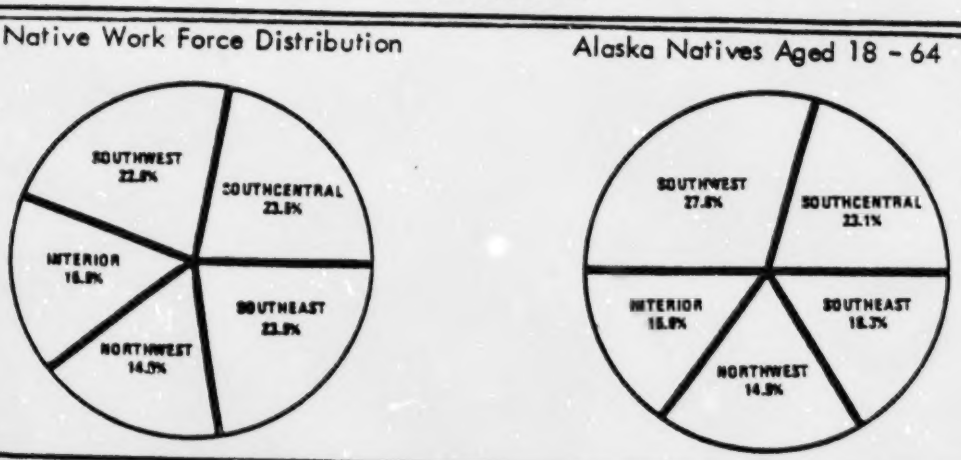
CHART H
ALASKA WORK FORCE/NATIVE WORK FORCE PROPORTIONS
1975 AND 1978



Compiled by: Human Environmental Resource Services, Inc.

Source: Table 23

CHART I
ALASKA NATIVE WORK FORCE[1] AND AGE 18 THROUGH 64
NATIVE POPULATION[2] DISTRIBUTION BY BUREAU OF INDIAN AFFAIRS
ESTIMATE 1978

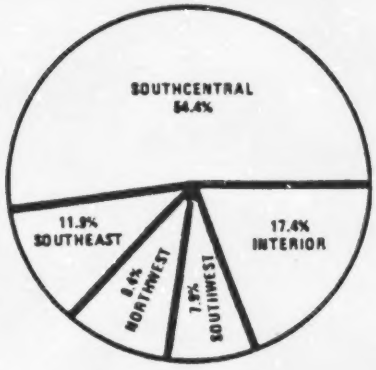


Compiled by: Human Environmental Resource Services, Inc.

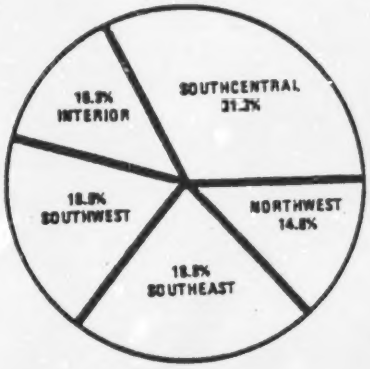
Sources:
1. Table 13.
2. Table 14.

CHART J
GENERAL POPULATION/ALASKA NATIVE POPULATION DISTRIBUTION 1978

General Population[1]



Alaska Native Population[2]

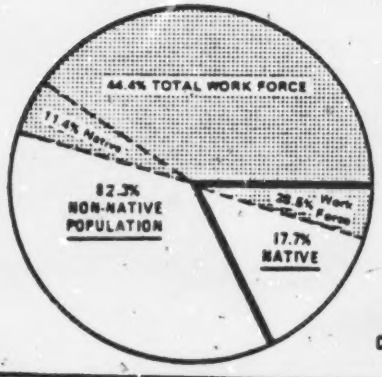


Compiled by: Human Environmental Resource Services, Inc.

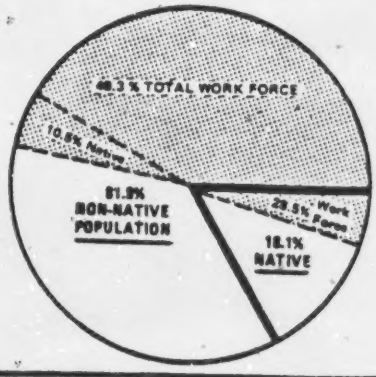
Sources:
1. Estimates of the Population of Alaska Census Divisions and Metropolitan Areas: July 1, 1974 and 1975, U.S. Bureau of the Census, Oct. 1976.
2. Table 23

CHART K
CIVILIAN WORK FORCE/NATIVE WORK FORCE AND POPULATION ESTIMATES 1978 AND 1980[a]

Resident Work Force 1978



Resident Work Force 1980 (projected)



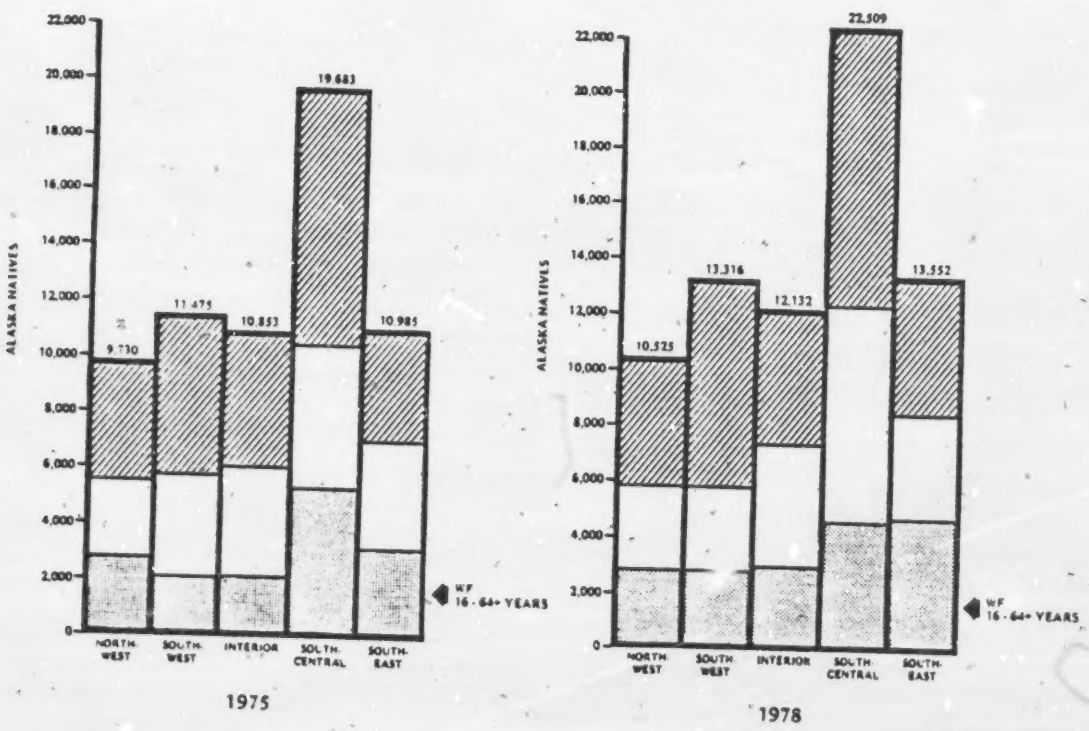
Civilian Population = 100.0%

a) Does Not predict start of the Trans-Alaska gasline construction project.

Compiled by: Human Environmental Resource Services, Inc.

Source: Tables 26 and 27.

CHART L
ALASKA NATIVE POPULATION AND WORK FORCE DISTRIBUTION BY GEOGRAPHIC REGION SPRING 1975 and 1978



Bar = Alaska Native Population in Geographic Region

▨ = Alaska Natives under Age 16 years

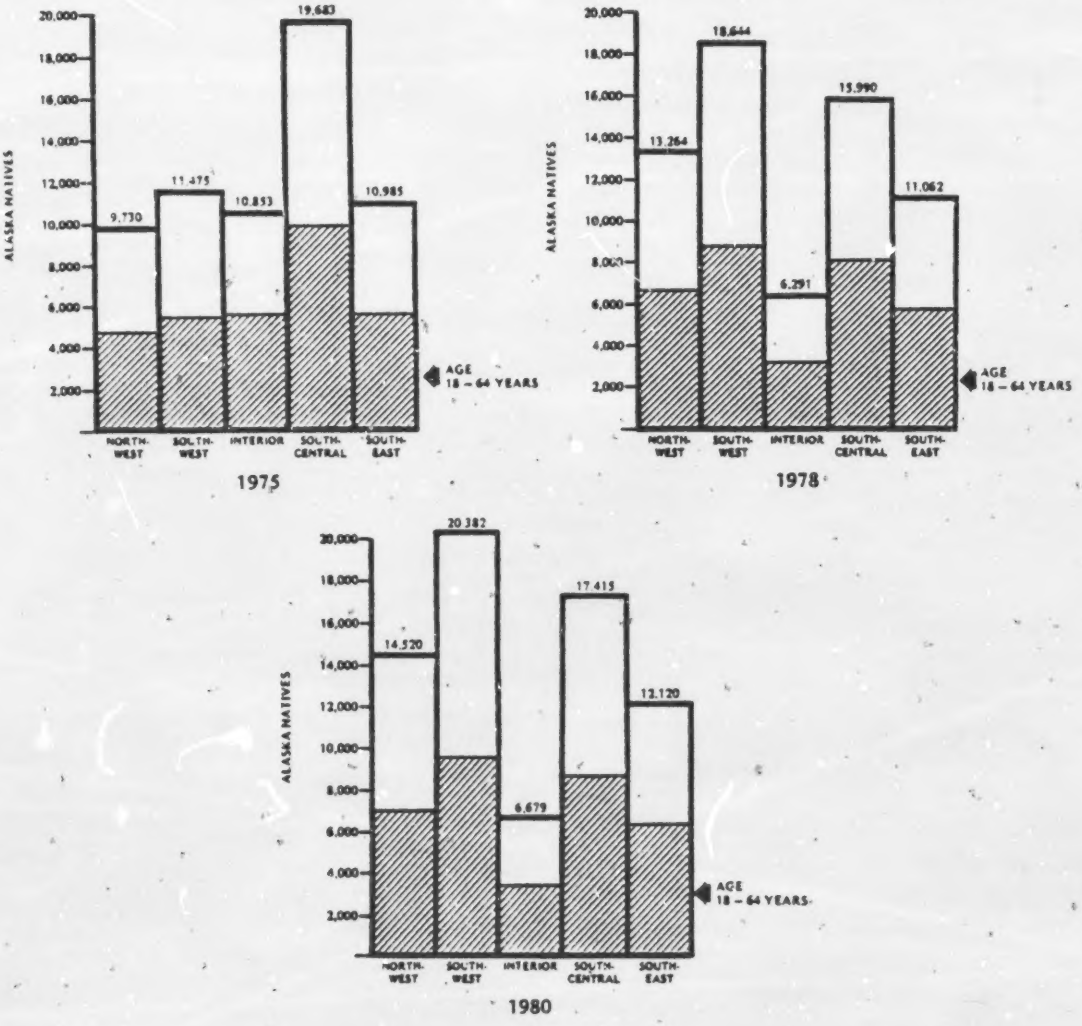
□ = Alaska Natives 16 – 64+ years not in Work Force

▩ = Alaska Natives 16 – 64+ years in Work Force

Compiled by: Human Environmental Resource Services, Inc.

Source: U.S. Department of Interior, Bureau of Indian Affairs, Juneau Area Report of Labor Force: 1975 and 1978.

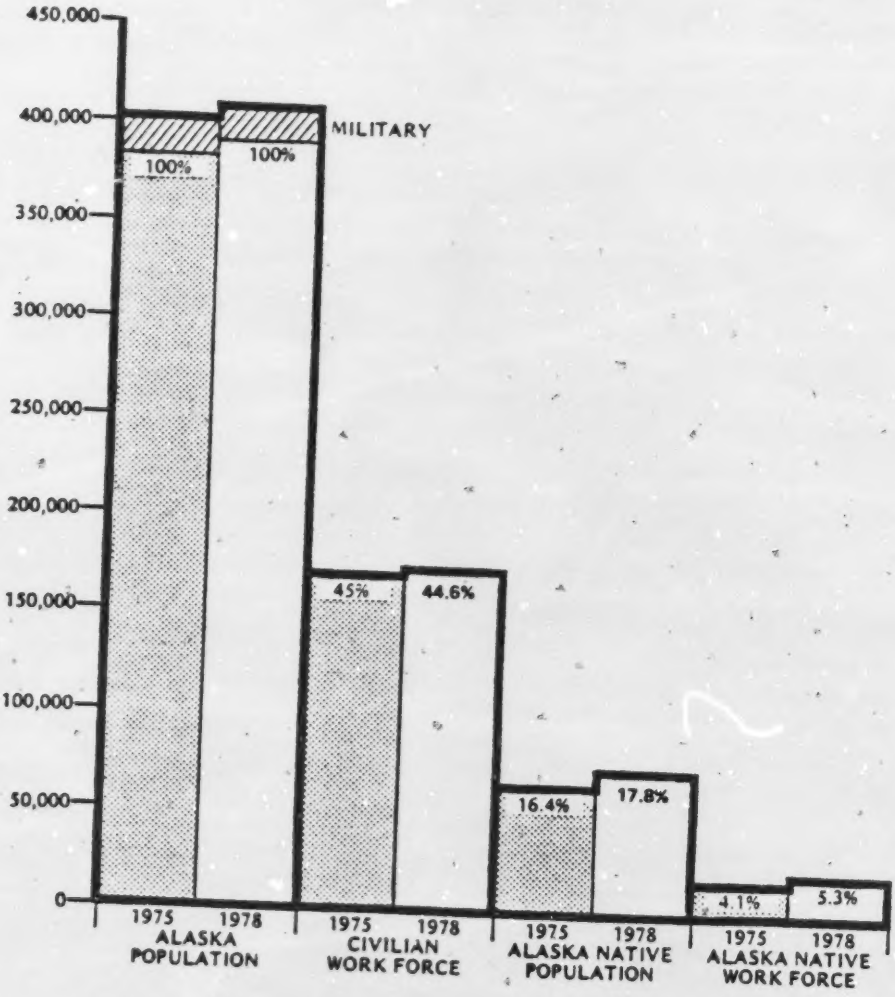
CHART M
ALASKA NATIVE POPULATION
AGE 18 THROUGH 64 YEARS BY GEOGRAPHIC REGION
ESTIMATES 1975, 1978 and 1980



Compiled by: Human Environmental Resource Services, Inc.

Source: Table 12 (also see Alaska Native Population and Manpower: 1975, p. 116, for 1975 data).

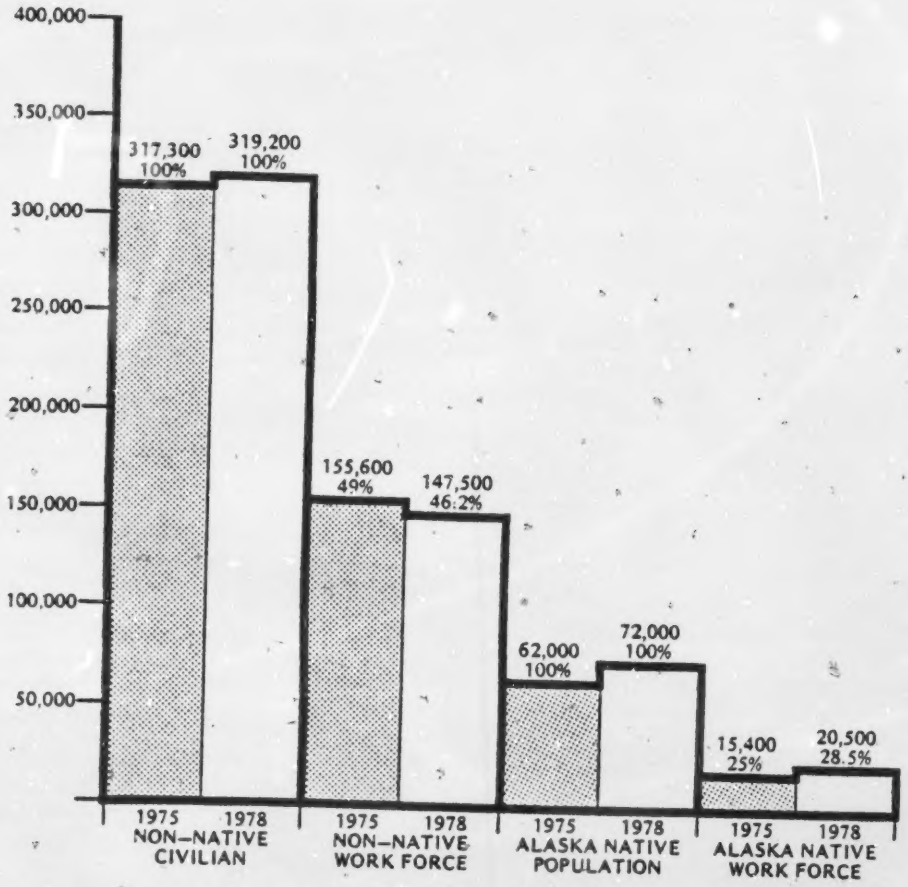
CHART N
ALASKA NATIVE WORK FORCE/POPULATION AND
CIVILIAN WORK FORCE/POPULATION RATIO
1975[1] and 1978[2] COMPARISONS



Compiled by: Human Environmental Resource Services, Inc.

Sources:
1. Alaska Native Population and Manpower: 1975, p. 118 for 1975 data.
2. Derived from Table 13 and Quarterly Report April 1978, AEIRS, Alaska Department of Commerce and Economic Development, pp. 13-15 (see also Alaska Native Population and Manpower: 1975, p. 117 for 1975 data).

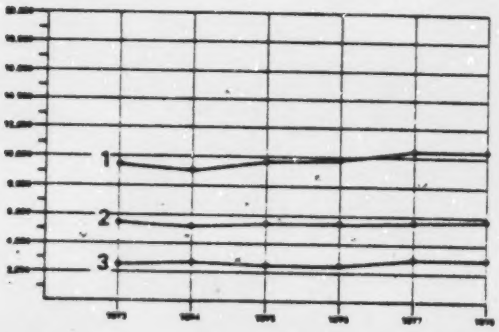
CHART O
ALASKA NATIVE WORK FORCE/POPULATION[1]
CIVILIAN WORK FORCE/POPULATION[2] COMPARISON
SPRING 1975 and 1978



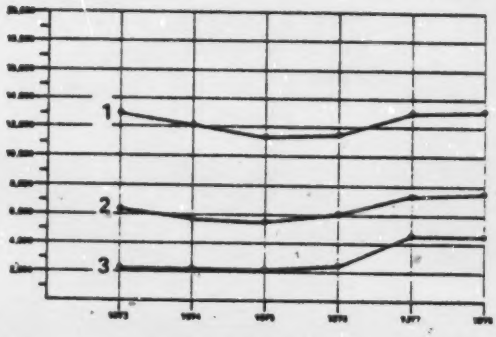
Compiled by: Human Environmental Resource Services, Inc.

Sources:
1. U.S. Department of Interior, Bureau of Indian Affairs, Juneau Area Report of Labor Force, 1975 and 1978.
2. Quarterly Report April 1978, AEIRS, Alaska Department of of Commerce and Economic Development, pp. 13-15 (see also Alaska Native Population and Manpower: 1975, p. 117 for 1975 data).

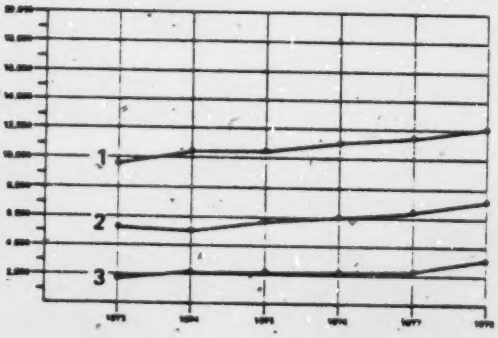
CHART P
(Part 1)
ALASKA NATIVE POPULATION AND ALASKA NATIVE
WORK FORCE DISTRIBUTION BY GEOGRAPHIC REGIONS
ESTIMATES 1973-1978[a]



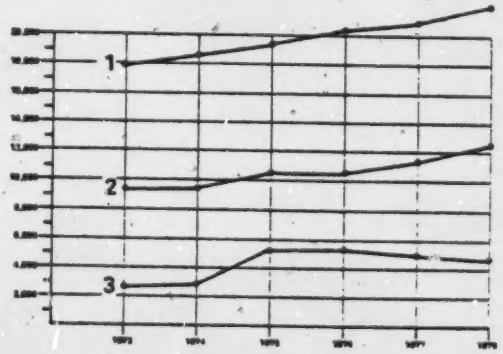
A. NORTHWEST REGION



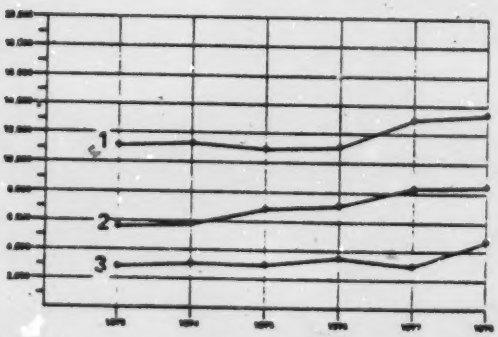
B. SOUTHWEST REGION



C. INTERIOR REGION

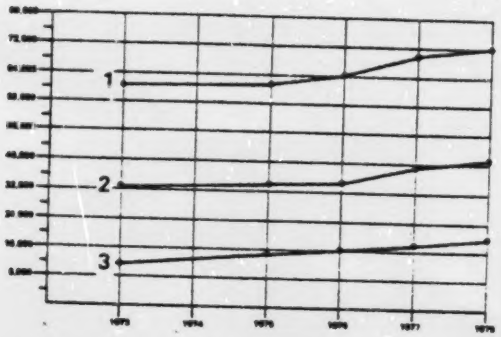


D. SOUTHCENTRAL REGIONAL



E. SOUTHEAST REGION

CHART P
(Part 2)



STATE OF ALASKA

ALASKA NATIVES

1. REGIONAL POPULATION
2. AGE 16 - 64+ YEARS
3. WORK FORCE AGE 16 - 64+ YEARS

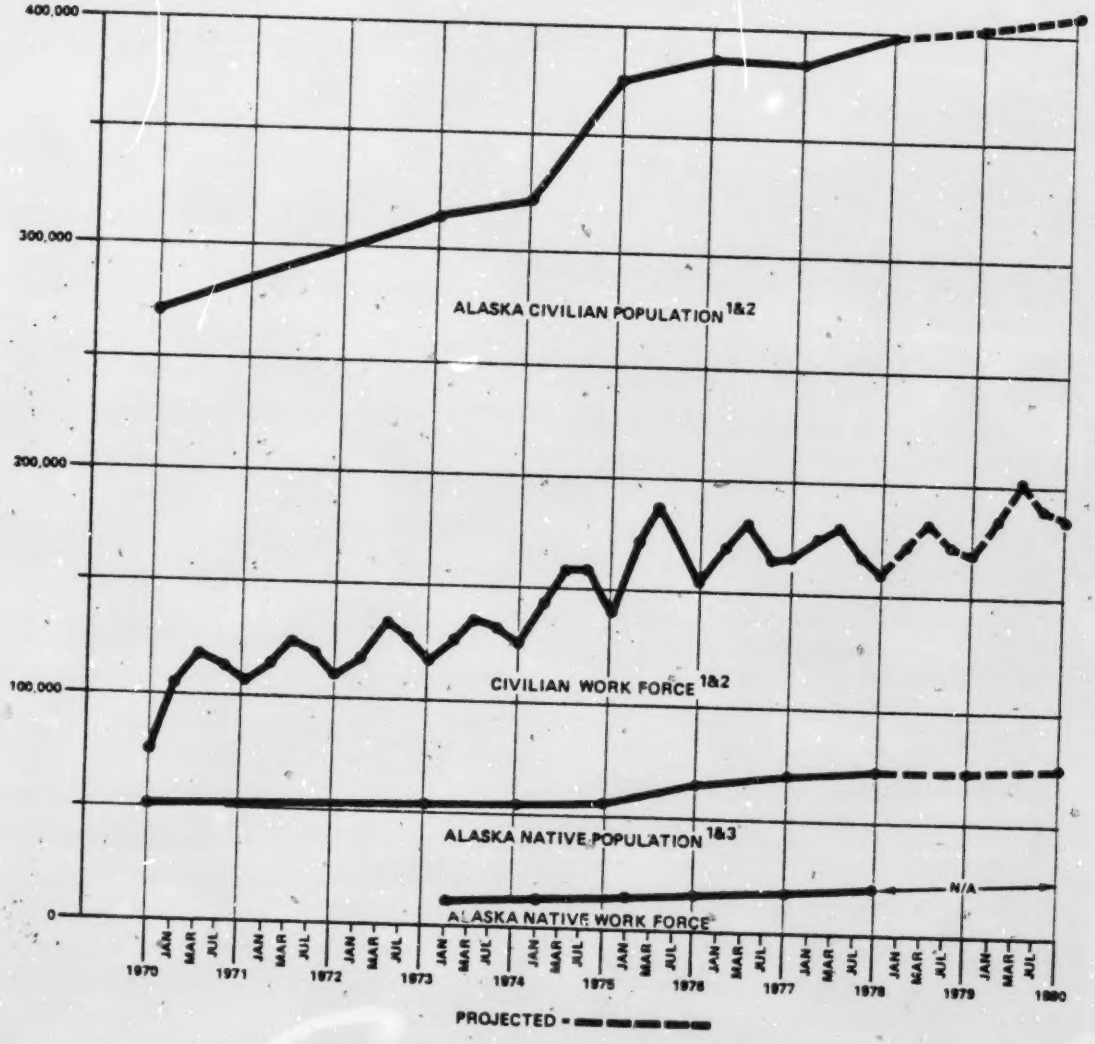
a) Reflects that Bethel Agency (BIA) did not report in 1974.

Compiled by: Human Environmental Resource Services, Inc.

Source: U.S. Department of Interior, Bureau of Indian Affairs, Juneau Area Report of Labor Force: Spring Reports 1973-1978.

CHART Q

ALASKA CIVILIAN POPULATION/CIVILIAN WORK FORCE
ALASKA NATIVE POPULATION/ALASKA NATIVE WORK FORCE
ESTIMATE AND PROJECTION
RATIO COMPARISON 1970 -1980



(N/A: "Not Available")

Compiled by: Human Environmental Resource Services, Inc.

Sources:
1. July 1970 - July 1978 data: Alaska Native Population and Manpower: 1975, p. 119.
2. July 1978 - 1980 Projections, AIERS Quarterly Report, pp. 13-15.
3. Tables 13 and 15.

Demographic detail data for the Alaska Native population as reported for the 1970 Census is valid as baseline data for statewide totals when subdivided by geographic regions insofar as it is recognized to be a substantial underenumeration. According to information available from authoritative sources in 1978, detail characteristics were not included for approximately 8.5% of the resident Native population in 1970. An additional 2 to 5% of the Native resident population was not included in the final 1970 Census. The Census data, however, is sufficient to establish sex and age group ratios for Alaska Natives that may be applied when treating or verifying periodic subsequent BIA and AANHS estimates for service area (or unit) estimates regarding the resident Alaska Native Population.

Official sources and other authorities generally agree that using the 1970 Census for extrapolating total Alaska general or Native population and work force estimates beyond 1971 or 1972 can be seriously misleading. Reliance must therefore be placed upon state and federal agency sources for general and Alaska Native current population and work force data. These data sources in turn must be evaluated and selected on a best judgment basis for any analysis and application related to contemporary population descriptions. For purposes of this report, the data collected, treated, and reported by AEIRS for the general population and work force is deemed to be the most acceptable in terms of probable reality. Data collected from the BIA and AANHS since 1973 through mid-1978 that are known to generally conform with sex and age group proportions reported by the 1970 Census for Alaska Natives and are selected as the most valid and reliable for this state sub-population.

Data generated by officially designated state and federal agencies is rarely reported in uniform or consistent terms between sources. Furthermore, acceptable data generated by the state for population and work force is commonly available by calendar quarter and annual averages. Detail data for the Alaska population generated by the BIA commonly is available once yearly and approximates the first calendar quarter. Data obtained from AANHS is usually reported on a yearly basis in a form suggesting it may be viewed as an annual or end-of-year report. Whenever possible, BIA data and general population and work force data are compared using first quarter AEIRS estimates. When annual average data are required, it is necessary to use BIA yearly Labor Force Report data since no other acceptable data is available. Since these data are compiled for a period of the year when people are least mobile and most easily estimated by area of residence (and a substantial portion of those who were seasonally employed remain on the work force reports because of unemployment compensation benefits), BIA population and work force estimates are reasonable annual averages for virtually all practical application. AANHS data serves to fill in the gap between comparable state and BIA data sources for a reasonable general Alaska population projection estimate.

For additional discussion and/or comment regarding types of available Alaska population data recognized by the State Government, see Addendum H.

IV
SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

After review of appropriate resource documents and sources of information, statistical treatment of selected current official and authoritative data judged to be most pertinent and reliable for this study, and the subsequent analysis and interpretation of data treatment results, substantial information has been developed to subserve the following opinion and conclusions.

1. The growth of the resident civilian and Native Alaska population components continues to average a substantial yearly expansion, but characteristic basic differences in these components directly affect manpower and work force utilization patterns associated with the two groups.

The Alaska non-Native civilian population remains young in comparison to the rest of the nation, and differs additionally by having a high proportion of individuals of prime working age for both sexes who are in the work force and are reported to have relatively less dependent adults and children per capita than is common in the U. S. Alaska Natives reflect an even lower median age than the non-Native population, but with a high proportion of young dependent children and adults not available to the work force by actual or potential measures.

2. Although both the general and the Alaska Native populations have increased substantially as anticipated in 1970, the non-Native/Native civilian population proportions have remained relatively constant and are expected to remain so through 1980--approximately 82% : 18%, respectively.

page 189 blank.

3. The Alaska Native population exhibits age group characteristics similar to age distribution profiles associated with exploding populations in developing nations. The introduction of an expanding wedge of Native youth maturing to working and child producing ages was recognized by Alaska demographic specialists in the early 1970's. This situation evolved concurrently with changing political and economic circumstances affecting favorably Native capabilities and aspirations to participate more equitably in the Alaska work force. By 1975, the Alaska civilian/Alaska Native worker components of persons aged 16+ years reported in the state's work force was 90.7% non-Native:9.3% Native. By 1978 the proportion had changed to 87.2% non-Native:12.8% Native. These figures reflect a post-oil line construction decrease in the state work force of about 4000 civilian workers, but an increase in the Native worker component of approximately 5000 Native workers over a three-year period. These estimates are for persons employed or unemployed and seeking work.

4. Official estimates dealing with the Alaska Native population aged 16+ for the years 1975 and 1976 describe approximately 25% of the Natives aged 16+as reported in the work force, while by 1978 slightly more than 28% to 29% were so reported. Thus, 1.5% per year net increase based on natural factors of maturation for a large proportionate number of youth, and death or retirement for a small number of older workers becomes a reasonable and logically useful factor for estimating annual Native work force growth.

5. Both the general and Alaska Native work force portions of population have expanded as anticipated with the state work force estimated to be approximately 45% of the total population from 1978 to 1980. The Native work force, for the same period, holds approximately 28% of the Native population (both estimated on the basis of age 16+).

6. The 1975 estimate showing 28% of age 16+ Alaska Natives in the work force reflects about 73% of the total potentially available Alaska Native manpower. The 1978 estimate reflects a 78% inclusion of similarly potentially available age 16+ Alaska Natives. Considering the low population density and isolated communities characteristic to the Native population distribution, it is doubtful if more than approximately 78% of the Alaska Native manpower aged 16+ potentially available to the work force can realistically be included in the general work force enumeration regardless of seasonal or labor-intensive project employer recruitment practices.

7. Reliable data are not available for 1975 or 1978 to estimate the portion of non-Native Alaska population age 16+, or 18 through 64 years, to establish comparisons with the Native population for similar age groups, nor is such data available for 1980 projections. Data are insufficient to derive reliable annual estimates for the aged 18 through 64 Alaska Natives regularly participating in the work force. Available data, however, do permit estimates indicating that Alaska Native individuals aged 18 through 64 comprise approximately 49% of the Native population in 1975, and are projected to represent 55% of the Native population by 1980. When

applied to the civilian population, Alaska Natives aged 18 through 64 represent about 9% of the total population in 1975, 10% in 1978, and a projected 10% in 1980.

8. The Alaska Native work force (age 16+) represents about 5% of the state population during the oil line inflated population period of 1975-76. The Native work force, however, represents slightly over 5% of the state population in the more "normal" year of 1978, although the state civilian population has expanded substantially during the same period. These figures are interpreted to suggest that given an annual minimum net increase of 1.5% in the Alaska Native work force due solely to attaining legal working age or completion of school years as derived from data covering the previous five years, and demonstrating that 28% of the Alaska Native population is identified as part of the total enumerated Alaska work force, factors are present for reasonable annual limits for proportion and numerical increase that can be applied in estimating the Alaska Native work force on an annual basis through 1980.

9. The Alaska Native work force (specifically and as a component of the state work force) has expanded substantially since 1970. According to 1973 BIA estimates, about 19.4% of the age 16+ Native population was reported in the work force. By 1978, more than 28% were in the work force, representing an increase of about 8,600 individuals in five years. The most significant change, however, is that the five-year participant increase for male workers was only .4%, while for women the increase was a remarkable 3.5%. Equally significant is the fact that although the number of Alaska Natives unemployed and actively seeking work shows a 5.6% increase in number (4,740)

between 1973 and 1978, the number who are seeking work during the early spring months of 1978, represents only 12.8% of the Alaska Native population.

10. Of the 25% to 28% of the Alaska Native population estimated to be in the work force during the years 1975-1978, the Native male participant rate has remained virtually constant at approximately 17% of the aged 16+ males. Female participation has increased during this period from 8% of the aged 16+ Native females to well over 11%.

11. Sufficient data are not available to draw a comparison between the age 16+ general population and the Alaska Native portion of population not available to the work force. Data are also similarly lacking for a comparison between the non-Native/Native 18 through 64 age groups. BIA data, however, indicate that about 56% of the Native population is aged 16 and over, with about 50% being aged 18 through 64. Of these persons, about 21% are not available to the work force under any normal conditions, with approximately two-thirds of those not available being women. On the basis of the data reported by the BIA over the past five years, it is reasonable to expect the percentages to remain essentially the same through 1980.

12. Native utilization of manpower is recognized to be different from that of the surrounding dominant society. A substantial allocation of Native manpower is demanded for subsistence, private family commercial fishing activities, and household and Village maintenance and survival labor requirements that are not normally reported as work force employment. Such labor is seasonal for some individuals and a

year-round activity for others. Both types of manpower demand are believed significant factors in patterns of Native work force availability and utilization.

13. Regardless of fluctuations in the total/civilian Alaska population, or components of age group/sex/race ratios within the general population, the Alaska Native population is subject to natural limitations that predetermine the Native population percentage or ratio outcomes for age group, sex, or size of Native work force, and extent of utilization of Native community manpower. These physical constraints on the size of the Alaska Native work force are further limited by circumstances associated with seasonal demands on Native manpower related to non-wage earning subsistence activities and labor needed for Village maintenance and survival. For the foreseeable future, around 20% to 22% of the age 16+ Native manpower cannot reasonably be viewed as real or potential participants in the state work force for reasons ranging from schooling and child care to food harvest and household survival.

The cumulative effect of government, Native leadership, and private industry in a nearly 10-year effort to create, develop, and promote progressively productive and sustained participation of Alaska Native workers in the state labor force shows statistically that from 1975 to 1978, of the total Native persons aged 16+ estimated to be potentially available for employment by the BIA a maximum of 27% (about 5800 individuals) are not included in state work force estimates during some part of each year's periodic reports. Included in this 27% are persons under age 18 and over 64; ages that are normally viewed as being outside the prime working age classification.

14. The type of data being analyzed and interpreted herein in order to describe Alaska Native work force and manpower utilization must take into account the regular and seasonal manpower demands made upon rural and urban resident Native workers in equal measure with the capacity for the Native population to produce given numbers of workers for given locations during various known annual peak labor demand periods. Strong consideration must also be given to the capacity of the State and Native organizations to implement and sustain measures to progressively upgrade the scope and quality of occupational skills Native workers can provide to meet foreseeable demands to be made on the general Alaska labor force, and the Native work force in particular.

15. Present estimates indicate that in 1978 nearly half (42%) of the Alaska Native population is under age 16, with just over half (51%) being aged 18 through 64. There is nothing in the available data to suggest that these proportions will change significantly in the forthcoming years. All known Alaska Native population characteristics considered--particularly the existing pervasive rural Village style of life and present strong emphasis being placed by Native leadership on education and/or training for youth and young adults--indications are that the Native population as presently described and understood cannot extend more than 25% to 30% of the total individuals for annual inclusion in the state labor force on a regular basis. Of these, a substantial but unknown portion will be available for employment only at

certain times of the year, willing to be employed at places distant from usual area of residence, and/or will be among those unemployed and seeking work or interested in changing a present career or job. All of these circumstances bear directly upon current patterns of Native manpower utilization, work force participation rate, and the growing situation-specific competitive employer/training program demand for Native workers generated by EEO and Alaska employer affirmative action plans.

16. The participation of Alaska Native workers in the trans-Alaska oil line construction project of 1974-77 is significant in that nearly 6,000 individual Native workers or trainees were employed on the project during the three-year period. Of greater significance is that in 1975 and 1976, approximately 10% of the total reported Alaska Native work force was employed on the construction project during some quarterly reporting periods. This supports an untested prior assumption that Alaska Native workers will respond in sigificant numbers to short job-term employment recruitment in keeping with individual needs for earned income and preference in type of income producing employment available. The trans-Alaska oil line construction project experience suggests that a reasonable estimate of approximately 1,500 to 2,000 persons in the Alaska Native work force (7% to 10%) can be expected to respond to intensive and extensive Native employee recruitment on behalf of a major labor-intensive project similar in manpower needs to that of the oil line construction project for a single quarterly recruitment target date.

17. The Alaska Native work force is subject to legitimate internal socio-economic and external public program policy pressures to meet the growing demand in qualified (or training) position openings related to local Native Region internal business and service employment. There can be no question that employment demand in both urban and rural areas for Alaska Native employees has expanded significantly since 1970. This is due in large measure to employment generated through compliance with federal legislation and regulations related to equal opportunity requirements with attendant affirmative action plan goals.

18. The Alaska Native work force is distributed, in descending order, within four state defined geographic labor market regions:

South Central (Anchorage hub)	33.0%
Balance of State (no hub)	32.7%
Southeast (Juneau hub)	21.2%
Interior (Fairbanks hub)	13.1%

19. Regardless of terms used to describe the distribution of the Alaska Native work force, clear communication falters in the magnitude of the distances to be surmounted, the logistics of communication and transportation to be overcome, and the cost in terms of personnel and services needed to reach the chronically unemployed of any race who are seeking work in the rural Villages. The trans-Alaska oil line construction project appears to have demonstrated that Alaska Natives seeking to respond to employer recruitment tended to gravitate (at least temporarily) to the larger centers

of rural and urban areas. Thus, places like Nome, Kotzebue, Barrow, Bethel, and Seward drew persons from the more isolated outlying communities where they could obtain employment assistance and were likely to have friends or relatives offering shelter. Factors of distance and problems in communication and transportation may have played an important part in limiting the number of Southeast (Sealaska Region) Alaska Natives who were employed on the oil line construction project.

20. In the final analysis, an interpretation of data from combined sources to develop a derived mean between the highest (BIA) and lowest (AANHS) Alaska Native population data sources for 1978 and 1980 estimates is judged the appropriate decision. This mean is deemed most realistic for practical purposes associated with describing proportions for Alaska Native manpower and work force utilization. Numbers derived from the mean should be applied with a standard ±5% margin for statistical error in data sources when the proportions appearing below are used to develop comparisons with any general population data as these may appear in periodic State reports after July 1978, or Alaska population reports published by the Bureau of the Census before results of the 1980 Census are made available.

	1978	1980
Alaska Native Population (±5%)	68,931	74,873
Proportion of Alaska Civilian Population (%)	17.8	18.1
Alaska Natives aged 18-64 years (%)	56.6	55.5
Men	31.0	29.3
Women	25.6	26.2
Alaska Native Work Force aged 16 + (%)	28.5	28.5

BASELINE ESTIMATES AND PROJECTIONS 1978-1980

	Alaska Native		(A I E R S) Total Population		Civilian Population		Work Force	
	1978	1980	1978	1980	1978	1980	1978	1980
BIA	72004	78630						
Annual High	--	--	412800	439600	391800	418600	183400	218700
AANHS	65857	71116						
Annual Low	--	--	406400	429000	385400	408000	160700	186200
MEAN ANNUAL	68931	74873	409400	434500	388400	413500	172600	203700

ALASKA NATIVE POPULATION BASELINE PROPORTIONS 1978

	TOTAL	MALE	FEMALE
Total	100.0	100.0	100.0
Under age 16	45.2	44.1	46.5
Age 16+	100.0	53.1	46.9
Not Available	36.7	14.2	22.5
Manpower	63.3	38.9	24.4
Not in Work Force	14.1	9.4	4.7
In Work Force	49.2	29.5	19.7

ALASKA CIVILIAN POPULATION : WORK FORCE/NATIVE WORK FORCE PROPORTIONS 1978

	Civilian Population	% Civilian Work Force	% Native Work Force
High (100.0%)	391800	41.0	5.2
Low (100.0%)	385400	47.6	5.3
MEAN (100.0%)	388400	44.4	5.3

21. It seems timely and reasonable that conditions are now present to permit development of a reliable estimate of the demand being placed upon the Alaska Native work force by Native Region corporate business and internal affairs as projected through 1980. In keeping with the procedure required to obtain such an estimate, it also seems likely that valuable information can be reliably obtained regarding seasonal subsistence, commercial fishing, and private employer local demand placed on the Native work force that have a direct effect upon the number (or percent) of Native individuals who can be regarded as available regularly or seasonally to the general work force, whether reported as employed or unemployed. Once identified, Native workers can then be categorically assigned by grouped estimates for numbers suggesting by geographic region how many individuals can be viewed as temporarily or permanently available for relocation within the state for purposes of employment, and for those who are so available on a Region area basis only.

This document, when viewed as an update for Alaska Native Population and Manpower: 1975, covers the years 1975 through 1978, including some projections for 1980. It has served to verify conclusions and opinions expressed in the previous study with the single exception that the general population growth predicted by state sources in 1975 failed to materialize. Therefore, the opinion expressed in 1975 that the Alaska Native population would be significantly lower in proportion to the non-Native population by 1980 is no longer valid. New information generated by the state and made available in the intervening years now indicates that the population ratio will remain essentially the same in toto, with the civilian population/Native population ratio possibly increasing by about 1% for the Alaska Native sub-population. This non-Native/Native civilian population ratio, however, can be expected to decline at least temporarily during the anticipated economic development expansion predicted by authorities to occur about the time the trans-Alaska gas line project begins full-scale construction in the early 1980's.

Recommendations for Further Research:

In the 1975 study three recommendations for additional research work were prescribed. One called for serious study of the socio-economic impact of training and work experience gained by Alaska Natives through employment/training associated with the oil line construction project in a form to produce useful information to be applied by government and other interested parties. The need for this type of investigation has been recognized and some research reports have already

been published (see Bibliography). There is a continuing need, however, to study the impact of labor-intensive-project Native-hire in future years. The 1975 recommendation is here re-worded to state:

1. Investigation and evaluation of the socio-economic impact of training and work experience gained by members of the Alaska Native work force through major heavy construction project employment should be routinely conducted, documented, and made a part of the state research resources available to government, industry, Alaska Native leadership, and other interested parties so contemporary data describing the Alaska Native work force may be applied in developmental planning for Alaska human resource and Alaska resident manpower utilization.

It is recommended that all due consideration be given by appropriate interested parties to fostering the enablement necessary to generate and execute independent research to obtain substantive and acceptable estimates for 1978 through 1980 (and beyond, if feasible) for demands to be imposed on the Alaska Native manpower and work force on a Native Region basis for:

Region corporate business
Region private business
Region government and civil affairs
Region subsistence and related activities.

Research additionally would be expected to produce estimates of seasonal peak and low local Region Native manpower and work force demand by percent of Native work force and seasonal availability for workers who may respond to statewide recruitment for permanent or temporary employment outside their Region of residence.

The need for the two other recommendations made in 1975 is supported by the results of this 1978 study. The recommendations as stated in 1975 (4, A-3 and A-4), and which remain valid are:

2. Investigation and assessment should be conducted to identify the manpower needs of Native Associations in the light of more recent developments regarding current and projected employment demands to conduct Native business and internal affairs--particularly where preferential Native hire is legally exercised and social pressure exists to place a maximum number of Native people in locally available jobs. This should include any implications that relate to the local, regional, and statewide deployment of Alaska Native manpower as a part of the state's civilian work force.

3. Patterns of rural Alaska Native manpower utilization, describing both income and non-income producing employment, should be defined and described in the light of recent changes and socio-economic development peculiar to the Alaska Native population since implementation of the Claims Act. Results of such an investigation should be carefully analyzed and interpreted as regards the relationship to and affect upon statewide utilization of the Alaska Native work force as a part of the Alaska civilian work force.

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ADDENDUM A

Definition of Commonly Used Terms and Abbreviations

A-1

DEFINITION OF TERMS AND ABBREVIATIONS

ADOL	Alaska Department of Labor
AAP	Affirmative Action Plan(s)
AEIRS	The Alaska Economic Information & Reporting System (Quarterly Reports)
AFN	Alaska Federation of Natives
AANHS (also ANS)	U.S. Public Health Service, Alaska Area Native Health Service (Central Administrative Offices in Anchorage)
BIA	U.S. Department of the Interior, Bureau of Indian Affairs
CETA	Comprehensive Employment and Training Act
Self-Determination Act	Indian Self-Determination and Education Assistance Act, P.L. 93-638
Settlement Act	Alaska Native Claims Settlement Act, P.L. 92-203
(xx, p. xx)	Refers to reference cited and pages (see Addendum for numbered References Cited section)
Total Population	Refers to all persons, including the military, residing in Alaska at any given period
Civilian Population	Refers to all persons except military personnel residing in Alaska at any given period and includes military dependents
Alaska Native Population (Contemporary)	Refers to all persons categorically recognized by the Federal Government as Alaska Eskimo, Aleut, or Alaskan Athabascan, Tlingit, Haida, or Tsimshian Indian ethnic origin

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Resident Alaska Native Population	As above, except it refers only to Alaska Natives who reside in the state, including persons away for schooling, training, military service, institutionalization or other reasons that do not ordinarily change resident status for a given state
Non-Native Population	Refers to all persons except Alaska Natives residing in Alaska at any given period
Resident Population	Refers to all persons residing in Alaska at any given period who are not migratory seasonal workers, military, or who are living in the state temporarily upon a job-determined rotational basis to other places of assignment
Urban Population	(a) by Census definition, persons who reside in a community of 2,500 or more; (b) conceptually, persons who live in general accordance with urban lifestyles, cultural attitudes, and behavior
Rural Population	(a) by Census definition, persons who reside in communities of less than 2,500; (b) conceptually, persons who live in general accordance with the patterns of cultural lifestyle of the Alaska Natives who occupy a given geographic region of the state
Total Work Force	Refers to all persons in Alaska, including military dependents and seasonal migrant workers as estimated on a periodic basis by the Alaska Department of Labor and described by ADOL as employed or unemployed and seeking employment
Civilian Work Force	Total work force, except the military
Alaska Native Work Force	Refers to resident Alaska Natives reported by the BIA as those Alaska Natives employed or unemployed and seeking work
Working Age Group	For this report, refers o persons aged 18 through 64 years or age 16 + appearing in ADOL and BIA labor force reports

Native Association (non-profit)	A regional organization of Alaska Natives enrolled as members of one of the Alaska Native aboriginal groups (Eskimo, Aleut, or Indian by subdivisions), conducting business and social affairs through corporate structures in accordance with the terms of the Alaska Native Claims Settlement Act
Native Region	Refers to an arbitrary geographic region described by boundaries associated with ancient and aboriginal land use of each of the 12 Native Associations described above
Reserve	Under P.L. 92-203, certain Native villages were given option between full Region Native Association benefit participation or accepting communal land ownership and continued BIA administration support. The latter choice is similar, but not identical to, "Indian Reserve" status as defined for the Metlakatla Indian Community (of Annette Island). Six Villages who elected to be excepted from Native Region Association Village member classification are labeled "Reserve" for convenient differentiation here and in casual conversation in Alaska (see Table 10, p. 92).
Native Village	For purposes of this report, any community of Alaska Natives declared by the U.S. Department of Interior as a "Native Village" under terms of the Alaska Native Claims Settlement Act. (In this report, smaller communities are occasionally referred to as Native or non-Native rural communities to differentiate between the Census definition and "Native Village" status.)
Rural Community	By census definition, any community of less than 2,500 residents
1970 Census (Census)	U.S. Census Population Estimates and Projections, Series P-25, No. 547 (ALASKA) and subsequent Alaska data publications, including Census data reports published by institutions authorized to do so by the U.S. Bureau of the Census

ADDENDUM B

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ADDENDUM C

C-1

Excerpts From

THE ALASKA ECONOMY: YEAR-END PERFORMANCE REPORT 1977

Alaska Native Claims Settlement Act

The Alaska Native Claims Settlement Act (ANCSA) was passed by Congress and signed into law December 18, 1971 by President Richard M. Nixon. This law was based on the fact that Alaska's aboriginal people had neither signed a treaty nor been defeated in war.

This Act (ANCSA) granted to Alaska Indians, Eskimos and Aleuts the right to select 40 million acres of land and established the Alaska Native Fund into which the following would be placed:

(1) From the U.S. Treasury, $462.5 million to be paid out over eleven fiscal years.
(2) From the State Treasury, $500.0 million to be paid out pursuant to revenue sharing procedures.

According to revenue sharing procedures, the State will pay into the Alaska Native Fund from the royalties, rentals, and bonuses received by the State within 60 days upon receipt of revenue:

(1) A royalty of two percent upon the gross value of such minerals produced or removed from State lands, and
(2) Two percent of all rentals and bonuses under such leases or sales, excluding bonuses received by the State at the September 1969 sale of minerals from tentatively approved lands and excluding rentals received pursuant to such sale before the date of enactment of the Act, and
(3) Payments shall continue only until $500 million has been paid into the Alaska Native Fund.

The Secretary of Interior divided the State of Alaska into 12 regions. Each region was to be composed, as far as practicable, of Natives having a common heritage and sharing common interests. This led to the establishment of 12 Regional Corporations. The Act further stated that all eligible Alaska Natives eighteen years of age or older who were not permanent residents of Alaska could elect to be enrolled in a thirteenth region for non-residents and may establish a Regional Corporation.

Once established, each Regional Corporation issued 100 shares of stock to each Native enrolled in the region. Issued stock carries the right to vote in elections for the board of directors and to vote for other such questions as properly may be presented to stockholders. ANCSA also permits the holder to receive dividends or other distributions from the Regional corporation in addition to providing the enrolled Native with all the rights of a stockholder in a business corporation organized under the laws of the State of Alaska. One principal exception exists in that for a period of twenty years after the date of enactment, the stock, and any dividends paid or distributions made may not be sold, pledged, subjected to lien or judgment execution, assigned in the present or the future, or otherwise alienated.

The Natives of each Native village entitled to receive lands and benefits under ANCSA had to incorporate before the Native village could receive patent to lands or benefits; and, the initial articles of incorporation for each Village Corporation had to be approved by the Regional Corporation in which the village was located.

During the five years following enactment of ANCSA, not less than 10 percent of all corporate funds received by each of the Regional Corporations from the Alaska Native Fund must be distributed among the stockholders of the 12 Regional Corporations. Not less than 45 percent during the first five year period and 50 percent thereafter, shall be distributed among the Village Corporations. In the case of the Thirteenth Regional Corporation, not less than 50 percent of all corporate funds shall be distributed to the stockholders.

As of September 30, 1977 the Alaska Native Fund has distributed $349 million to the 13 Regional Corporations. The September 30 payment included $30 million from Congressional appropriation and $539,000 in interest on the appropriation while mineral income from the State of Alaska amounted to $14,100 and $358 in interest. The following table lists the payments from the Alaska Native Fund to each Regional Corporation and current enrollment figures.

page 206 blank

TOTAL ENROLLMENT AND PAYMENTS TO ALASKA'S NATIVE REGIONAL CORPORATIONS SEPTEMBER 30, 1977
(Payments in Thousands of Dollars)

Native Regional Corporation	Enrollment	Payments
Ahtna	1,057	$ 4,790.6
Aleut	3,124	14,391.4
Arctic Slope	3,710	17,263.1
Bering Straits	7,358	30,198.2
Bristol Bay	5,315	24,220.8
Calista	13,197	60,053.2
Chugach	1,881	8,866.2
Cook Inlet	6,052	27,531.2
Doyon	9,336	41,347.6
Koniag	3,267	14,610.1
Nana	4,758	21,726.8
Sealaska	15,393	71,606.9
Thirteenth	4,007	12,207.2
Total	78,455	$348,813.4

Source: Alaska Native Management Report, Alaska Native Foundation.

As the Regional Corporations began receiving settlement payments, the corporations started operations in earnest. As they began operations, construction of the pipeline commenced. Several corporations obtained contracts ranging from catering and security services to heavy construction on the pipeline which helped in their indoctrination into the business community. This experience will also be quite valuable when construction of a natural gas line begins.

Regional Corporations have made substantial investments in motel and hotel complexes throughout the State, especially in Anchorage. Six corporations joined together in the formation of the United Bank of Alaska which has over $48 million dollars in total assets as of September 1977.

Some corporations have made investments in the fishing industry by purchasing crab trawlers and freighters. One has purchased a processing firm with five fish processing plants. Other real investments include the purchase of construction firms, trailer sales, trucking firms, shopping and office plazas, and warehouses. They have also made financial investments (stocks and other securities) totaling over $35 million.

Two corporations have entered into agreements for the exploration of hard rock minerals while six corporations have entered into agreements for oil and gas exploration with Standard of California, Texaco, Union, AMOCO, Standard, Phillips, Louisiana Land and Exploration, SoCal, and Shell petroleum firms.

While payments to the Alaska Native Fund have been received, land conveyances have stalled. The principal reason for the delay is litigation concerning easements. Recently one village corporation representative testified before a U.S. House subcommittee that their village corporation has had to spend, in litigation, over 50 percent of the money received to date just to obtain the land that it is entitled to by law.

As of July 15, 1977, Alaska Natives have received 4.5 million acres, of the total allotment of 40 million acres. A recent statement by the Secretary of the Interior indicates that 70 to 80 percent of the land conveyances could be accomplished within the next three years. The various corporations need their land entitlement to achieve planning efforts ranging from increased housing to timber and mineral development.

During the past five years, the ANCSA has provided the Alaska Native corporations with large amounts of capital to begin operations. A few of the corporations have made unfortunate financial decisions and currently are undergoing financial difficulties. Most of the corporations have chosen their investments wisely, received a good indoctrination into the corporate system, and are providing additional employment opportunities to Alaska Natives and others.

While ANCSA was designed specifically to benefit Alaska Natives, its implementation has helped in the overall expansion of the State's economy. The various corporations have made many investments which will provide additional employment opportunities through construction and facilities management while providing additional services to all the State's residents.

ADDENDUM D

BIA Report of Labor Force

1978

D-1

Data are for January (month) 1978 (year)

	1978 Total	Arizona	
Total Resident Indian Population (sum excluding d)	72,004	37,928	34,076
a. Within the reservation			
b. Adjacent to the reservation (in Okla., Indians in former reservation areas			
c. Other Indians, not included in labor force data (In California rural parts of counties with reservations or rancherias)			
d. Total under 16 years of age included on line "A"	30,305	15,778	14,527
RESIDENT INDIAN POPULATION OF WORKING AGE (16 years old and over)			
E. Total 16 years and Over (A minus d)	41,699	22,150	19,549
f. 16 - 24 years	14,724	7,826	6,898
g. 25 - 34 "	9,307	5,134	4,173
h. 35 - 44 "	7,210	3,898	3,312
i. 45 - 64 "	7,512	3,990	3,522
j. 65 years and over	2,693	1,441	1,252
H. Not in Labor Force (16 Years and Over), Total (n + o + p + q)	15,287	5,910	9,377
n. Students (16 years and over, including those away at school)	7,524	3,988	3,536
o. Men, physically or mentally disabled, retired, institutionalized, etc.	1,942	1,942	
p. Women for whom no child-care substitutes are available	3,633		3,633
q. Women, housewives, physically or mentally disabled, institutionalized, etc.	2,188		2,188
R. Potential Labor Force (16 yrs. and Over) (F minus H)	26,412	15,240	10,172
S. Employed, Total (t + u)	11,289	6,382	4,907
t. Employed, earning $5,000 or more a year (all jobs)	6,678	4,068	2,610
u. Employed, earning less than $5,000 a year (all jobs)	4,611	2,314	2,297
V. Not employed (R minus S)	15,123	9,858	5,265
w. Of these, persons actively seeking work	9,232	5,917	3,315

Prepared by M. Faith Gateway/gc M.F. GATEWAY/gc

ATTACHMENT: Superintendent's Evaluation of Dat

Area Director: Clarence Antequia

Superintendent

Area	Approval Date	AGENCIES	Approval Date
JUNEAU AREA OFFICE	MAR 27 1978	- Combined -	

page 201 blank

REPORT OF LABOR FORCE
Data are for FEBRUARY (month) 1978 (year)

	1978	ALASKA	
	Total	[illegible]	[illegible]
A Total Resident Indian Population (See instruction 4)			
a. Within the reservation	22,509	12,154	10,355
c. Adjacent to the reservation (in Okla., Indians in former reservation areas			
d. Other Indians, not included in labor force data (In California rural parts of counties with reservations or rancherias)			
b. Total under 16 years of age included on line "A"	10,132	5,475	4,657
RESIDENT INDIAN POPULATION OF WORKING AGE (16 years old and over)			
F Total 16 years and Over (A minus e)	12,377	6,679	5,699
f. 16 - 24 years	4,703	2,540	2,163
g. 25 - 34 "	2,475	1,337	1,138
h. 35 - 44 "	2,229	1,203	1,026
i. 45 - 64 "	2,229	1,203	1,026
j. 65 years and over	741	396	345
M Not in Labor Force (16 Years and Over), Total (n + o + p + q)	6,326	2,561	3,765
n. Students (16 years and over, including those away at school)	3,828	2,066	1,762
o. Men, physically or mentally disabled, retired, institutionalized, etc.	495	495	
p. Women for whom no child-care substitutes are available	1,396		1,396
q. Women, housewives, physically or mentally disabled, institutionalized, etc.	607		607
R Potential Labor Force (16 yrs. and Over)(F minus M)	6,051	4,118	1,933
S Employed, Total (t + u)	2,927	1,944	983
t. Employed, earning $5,000 or more a year (all jobs)	2,342	1,555	787
u. Employed, earning less than $5,000 a year (all jobs)	585	389	196
V Not employed (R minus S)	3,124	2,174	950
w. Of these, persons actively seeking work	1,875	1,440	435

Prepared by L. B. Matson
H. P. GAZAWAY

ATTACHMENT: Superintendent's Evaluation of D

Area Director

Superintendent
Roy Peratrovich

CORRECTED AND RETYPED

Area	Approval Date	Agency Anchorage - Composite of six regions.	Approval Date

REPORT OF LABOR FORCE — BETHEL AGENCY

Data are for FEBRUARY (month) 1978 (year)=

		Year 1978	State Alaska	
A	Total Resident Indian Population (b+c excluding d)	Total 13,316	MALE 6,831	FEMALE 6,485
b	Within the reservation	13,316	6,831	6,485
c	Adjacent to the reservation (in Okla., Indians in former reservation areas			
d	Other Indians, not included in Labor force data (In California rural parts of counties with reservations or rancherias)			
e	Total under 16 years of age included on line "A"	5,808	2,867	2,941
	RESIDENT INDIAN POPULATION OF WORKING AGE (16 years old and over)			
F	Total 16 years and Over (A minus e)	7,508	3,964	3,544
g	16 - 24 years	2,839	1,371	1,468
h	25 - 34 "	1,867	1,038	829
i	35 - 44 "	1,242	613	629
j	45 - 64 "	1,139	649	490
k	65 years and over	421	293	228
M	Not in Labor Force (16 years and over), Total (n + o + p + q)	1,997	738	1,209
n	Students (16 years and over, including those away at school)	977	574	403
o	Men, physically or mentally disabled, retired, institutionalized, etc.	214	214	0
p	Women for whom no child-care substitutes are available	605	0	605
q	Women, housewives, physically or mentally disabled, institutionalized, etc.	201	0	201
R	Potential Labor Force (16 yrs. & over) (F minus M)	5,511	3,176	2,335
S	Employed, total (t + u)	1,571	1,027	544
t	Employed, earning $5,000 or more a year (all jobs)	795	481	314
u	Employed, earning less than $5,000 a year (all jobs)	776	546	230
V	Not employed (R minus S)	3,940	2,149	1,791
w	Of these, persons actively seeking work	3,077	2,021	1,056

Prepared by Louis Bunyan, Sr.
Vocation Dev. Officer,
John Angaiak, Deputy
Yubiktak Bista Manpower, Bethel

ATTACHMENT: Superintendent's Evaluation of Data

Area Director

Superintendent

Calvert L. [illegible] 3/14/78

Area | Approval Date

Agency | Approval Date

MAR 16 1978

Data are for January (month) 1978 (year)

	1978	ALASKA	
	Total	[illegible]	[illegible]
A Total Resident Indian Population (See explanation A)	12,132	6,461	5,671
a Within the reservation			
c Adjacent to the reservation (in Okla., Indians in former reservation areas			
d Other Indians, not included in labor force data (In California rural parts of counties with reservations or rancherias)			
e Total under 16 years of age included on line "A"	4,799	2,498	2,291
RESIDENT INDIAN POPULATION OF WORKING AGE (16 years old and over)			
F Total 16 years and Over (A minus e)	7,343	3,963	3,380
f 16 - 24 years	2,726	1,473	1,253
h 25 - 34 "	1,851	1,015	836
i 35 - 44 "	1,095	639	456
j 45 - 64 "	1,167	586	581
k 65 years and over	504	250	254
M Not in Labor Force (16 Years and Over), Total (n + o + p + q)	2,494	925	1,569
n Students (16 years and over, including those away at school)	784	350	434
o Men, physically or mentally disabled, retired, institutionalized, etc.	575	575	
p Women for whom no child-care substitutes are available	556		556
q Women, housewives, physically or mentally disabled, institutionalized, etc.	579		579
R Potential Labor Force (16 yrs. and Over)(F minus M)	4,849	3,038	1,811
S Employed, Total (t + u)	1,524	739	785
t Employed, earning $5,000 or more a year (all jobs)	1,089	604	485
u Employed, earning less than $5,000 a year (all jobs)	435	135	300
V Not employed (R minus S)	3,325	2,299	1,026
b Of these, persons actively seeking work	1,658	1,100	558

Prepared by H. P. Gazaway
H. P. GAZAWAY
Composite of Tanana Chiefs Conference and Arctic Slope Native Association.

ATTACHMENT: Superintendent's Evaluation of Data

Area Director

Superintendent

Area	Approval Date	Agency	Approval Date
		FAIRBANKS	

Data are for FEBRUARY (month) 1978 (year)

	1978 Total	ALASKA	
Total Resident Indian Population (Sum of lines b, c, d)			
b Within the reservation	10,525	5,544	4,981
c Adjacent to the reservation (in Okla., Indians in former reservation areas			
d Other Indians, not included in labor force data (In California rural parts of counties with reservations or rancherias)			
e Total under 16 years of age included on line "A"	4,603	2,391	2,212
RESIDENT INDIAN POPULATION OF WORKING AGE (16 years old and over)			
F Total 16 years and Over (A minus e)	5,922	3,153	2,769
g 16 - 24 years	1,923	988	935
h 25 - 34 "	1,122	609	513
i 35 - 44 "	1,016	554	462
j 45 - 64 "	1,233	654	579
k 65 years and over	628	348	280
M Not in Labor Force (16 Years and Over), Total (n + o + p + q)	2,068	759	1,309
n Students (16 years and over, including those away at school)	1,000	510	490
o Men, physically or mentally disabled, retired, institutionalized, etc.	249	249	
p Women for whom no child-care substitutes are available	543		543
q Women, housewives, physically or mentally disabled, institutionalized, etc.	276		276
R Potential Labor Force (16 yrs. and Over) (F minus M)	3,854	2,394	1,460
S Employed, Total (t + u)	1,921	1,200	721
t Employed, earning $5,000 or more a year (all jobs)	1,268	818	450
u Employed, earning less than $5,000 a year (all jobs)	653	382	271
V Not employed (R minus S)	1,933	1,194	739
w Of these, persons actively seeking work	1,143	718	425

Prepared by PAUL STERLING II

Paul Sterling II

Area Director

ATTACHMENT: Superintendent's Evaluation of

Superintendent GARY T. LONGLEY, SR.

Area	Approval Date	Agency	Approval Date
		NOME AGENCY	

Data are for FEBRUARY (month) 1978 (year)

	1978	ALASKA	
	Total	MALE	FEMALE
A Total Resident Indian Population (See instruction d)	13,522	6928	6594
a. Within the reservation			
c. Adjacent to the reservation (in Okla., Indians in former reservation areas			
d. Other Indians, not included in labor force data (In California rural parts of counties with reservations or rancherias)			
e. Total under 16 years of age included on line "A"	4,973	2547	2426
RESIDENT INDIAN POPULATION OF WORKING AGE (16 years old and over)			
F. Total 16 years and Over (A minus e)	8,549	4391	4159
f. 16 - 24 years	2,592	1324	1269
g. 25 - 34 "	2,185	1126	1059
h. 35 - 44 "	1,728	889	839
i. 45 - 64 "	1,744	898	846
j. 65 years and over	299	154	145
M. Not in Labor Force (16 Years and Over), Total (n + o + p + q)	2,402	877	1525
n. Students (16 years and over, including those away at school)	935	468	467
o. Men, physically or mentally disabled, retired, institutionalized, etc.	409	409	
p. Women for whom no child-care substitutes are available	533		533
q. Women, housewives, physically or mentally disabled, institutionalized, etc.	525		525
R. Potential Labor Force (16 yrs. and Over)(F minus M)	6,147	3514	2633
S. Employed, Total (t + u)	3,346	1472	1874
t. Employed, earning $5,000 or more a year (all jobs)	1,184	610	574
u. Employed, earning less than $5,000 a year (all jobs)	2,162	862	1300
V. Not employed (R minus S)	2,801	2042	759
b. Of these, persons actively seeking work	1,479	638	841

Prepared by H. P. GAZAWAY

Composite of Tlingit and Haida Central Council and Community of Metlakatla.

ATTACHMENT: Superintendent's Evaluation of

Area Director

Superintendent AREA FIELD REPRESENTATIVE

Tim DeAsis

Area	Approval Date	Agency	Approval Date
		SE ALASKA	

ADDENDUM E

E-a Probable Long-Range Alaska Heavy Construction Projects

E-b Examples of 1978-79 Military Construction Projects in Alaska

E-c Examples of Native Region Corporate Enterprise in 1974

PROBABLE LONG-RANGE ALASKA HEAVY CONSTRUCTION PROJECTS

Project	Location	Construction Time	Estimated On Line
State Capital Relocation	Willow	?	1980
Prudhoe Bay Gas Conditioning Plant	Prudhoe Bay	N/A	N/A
Natural Gas Pipeline	Prudhoe Bay via Alaska Highway	3 - 5 yrs.	1983
Facility for Prudhoe Royalty Oil	Kenai Peninsula	3 - 4 yrs.	1981-1985
Facility for Prudhoe Royalty Gas	Southcentral Tidewater and/or Interior Alaska	N/A	?
Beluga River Coal Field Facility	Willow and/or Drift River	N/A	?
Thomas Bay Hydroelectric Project	Petersburg	3 - 5 yrs.	?
Bradley Lake Hydroelectric Project	Homer	5 yrs.	?
Watana Hydroelectric Project	Susitna River	9 yrs.	1986
Devil's Canyon Hydroelectric Project	Susitna River	7 yrs.	1990
Rampart Hydroelectric Project	Yukon River	12 - 22 yrs.	?

Compiled by: Human Environmental Resource Services, Inc.

Source: Alaska Business Trends: 1978 Economic Forecast, Alaska Pacific Bank, 1978.

(N/A: "Not Available")

E/b

EXAMPLES OF 1978-79 MILITARY
CONSTRUCTION PROJECTS IN ALASKA

Military Building Projects Funded

The Senate Appropriations Subcommittee on Military Construction this month concurred with Senator Stevens and restored $2 million to the military construction allocation for the State of Alaska, approving a total state appropriation of $36.7 million.

The House Appropriations Committee had reduced the budget for the Adak Naval Station by $2 million, directing that some of the Adak projects be undertaken by the Navy's construction battalion (Seabees). Stevens argued that private construction companies should have the opportunity to be involved in the projects, and that the federal government should not be doing the work. The Senate panel concurred and restored the money.

A complete list of the Alaska appropriations follows:

Fort Greely - BOQ modernization - $706,000
Adak Naval Station - Radar Air Traffic Control facility - $3,050,000
Adak Naval Station - BEQ modernization - $2,700,000
Adak Naval Station - drainage ditch - $890,000
Adak Naval Communications Station - Water Treatment facility - $790,000
Adak Naval Communications Station - Solid Waste Disposal System - $400,000
Eielson AFB - add to and alter fire station - $1,602,000
Galena airport - ACFT Instrument Landing and NAV facility - $540,000
Shemya AFB - ACFT Instrument Landing and NAV facility - $546,000
Various locations Alaskan Air Cmd - Special Ops. facilities - $3,400,000
Army National Guard, Kotzebue - Army Aviation Flight Activity - $1,635,000
Air Nat. Guard Kulis ANGB, Anchorage - Fuel System Maint. dock - $2,800,000
National Guard Advisory Detachment at Kotzebue and Bethel - Family Housing Dwellings - $137,000
Elmendorf AFB - Improve family housing - $2,904,000
Fort Greely - Insulation, storms and heat controls - $2,037,000
Fort Wainwright - Insulation, storms and heat controls - $3,482,000
Adak Naval Station - Energy recovery systems - $1,500,000
Fort Richardson - Engine exhaust system facility - $1,974,000
Fort Richardson - Barracks/dining facility modernization - $5,234,000
Anchorage Army Guard - Supply maintenance shop alteration - $120,000
Naval Arctic Research Lab - Planning and design funds for proposed gas and electrical intertie with Barrow - $300,000

Source: Excerpt - Senator Ted Stevens Newsletter, Vol. 10, No. 5, June 1978

E/c

EXAMPLES OF NATIVE REGION CORPORATE ENTERPRISE IN 1974

Started	Community	Venture	Type	Service
August 1969	Akiachak	Akiachak Village Cooperative, Inc.	store	groceries, general merchandise
August 1969	Akolmiut	Akolmiut Management Systems, Inc.	boarding home	student housing
1974	Aleknagik	Aleknagik Cooperative Store	store	groceries, general merchandise
August 1971	Kwigillingok	Chaninik Cooperative Inc.	store	groceries, general merchandise
August 1969	Fairbanks	DNH Development Corporation	construction, transportation	general construction and water and road transportation
February 1974	Golovin	Golovin Fish Processing Co-Op, Inc.	fishing	fish processing and marketing
May 1971	Goodnews Bay	Goodnews Bay Cooperative, Inc.	store	groceries, general merchandise
February 1968	Hoonah	Hoonah Wild Products	food processing	jams, jellies, and preserves
September 1974	Beaver	Innuit Co-Op	store	groceries, general merchandise
April 1969	Karluk	Karluk Village Fishermen's Cooperative, Inc.	fish	process and market salmon
March 1972	Akhiok	Kash-Kash Cooperative, Inc.	store	hardware, groceries dry goods
February 1970	Kasigluk	Kasigluk Cooperative Store, Inc.	store	hardware, groceries dry goods
February 1973	Kiana	Kiana Cooperative Store, Inc.	store	groceries, general merchandise
May 1970	Koliganek	Koliganek Cooperative	store	groceries, general merchandise
May 1968	Kotzebue	Kotzebue Sound Area Fishery Cooperative, Inc.	fishing	process and market salmon and some freshwater fish
August 1974 (date of CEDC Loan)	Hughes	Hudohdleekaga, Inc.	fuel	fuel storage
August 1973 November 1973	Selawik Angoon	Akulniak, Inc. Angoon Motel	fuel motel	fuel storage overnight lodging
July 1966	Bethel	Kuskokwim Fishermens Cooperative, Inc.	fishing	fish, freezer barge
April 1974	Manokotak	Manokotak Village Residents Cooperative, Inc.	store	groceries, dry goods fish and fish products
June 1970	Mentasta	Mentasta Athabascan Gift Shop and Store Cooperative, Inc.	store	tourist gift shop
December 1969	Mountain Village	Mountain Village Cooperative, Inc.	store	groceries, general merchandise
March 1972	Kotzebue	NANA Construction Company, Inc.	construction	general constructi
May 1970	New Stuyahok	New Stuyahok Community Cooperative, Inc.	store	groceries, general merchandise
March 1973	Nondalton	Nondalton Knichek Cooperative, Inc.	store	groceries, general merchandise
May 1970	Togiak	Togiak Village Cooperative, Inc.	store	groceries, general merchandise
March 1971	Toksook Bay	Toksook Bay Arts and Crafts Cooperative, Inc.	artist crafts	buy and sell Native arts and crafts
January 1970	Nome	Northwest Skin Sewers	sewing group	make parkas, mukluks, slipper, dolls
October 1974	Wildwood	Wildwood Village Grocery, Inc.	store	groceries, general merchandise
January 1973	Unalakleet	Norton Sound Fishermen's Co-Op	fishing	processing and marketing (fish)
October 1969	Dillingham	Nushagak Fishermen, Inc.	fishing	fish processing and marketing
1969	Old Harbor	Old Harbor Cooperative, Inc.	fishing	fish processing and marketing
February 1969	Shishmaref	Shishmaref Ki-Kit-Ta-Moot Arts and Crafts	arts and crafts	make and market Native arts and crafts
November 1972	Juneau	Tlingit and Haida Federal Credit Uninn	credit union	investments and loan
December 1968	Nome	Sonarit Associates, Inc.	arts and crafts	market for local Native artisans
October 1973	Yakutat	Yakutat Gulf Fishing Company, Inc.	fishing	fish processing and marketing
November 1967	Emmonak	Yukon Delta Fish Marketing Fishing Cooperative	fishing	fish processing and marketing
July 1974	Nome	Bering Straits Federal Credit Union	credit union	investments and loan
November 1974	Fairbanks	Tanana Chiefs Federal Credit Union	credit union	investments and loan

Source: Excerpt - 2(c) Report, Task II, Demography, pp. 14-15.

ADDENDUM F

INFORMATION AND EXAMPLES RE CETA PROGRAM IMPACT IN ALASKA FORECAST TO 1982

F-1

Excerpts From Alaska State Manpower Review, March 1977
Alaska Department of Labor

COMPREHENSIVE EMPLOYMENT AND TRAINING ACT (CETA)

The State of Alaska implements four titles of the Comprehensive Employment and Training Act: Titles I, II, III, and VI. These programs are financed totally with federal government monies.

The purpose of Title I is to provide employment and training opportunities to the unemployed, underemployed or economically disadvantaged Alaskan. Programs included under this title are Vocational Skill Training or Classroom Training (CT), On-the-Job Training (OJT), and Work Experience (WE). Classroom training is any training conducted in an institutional setting designed to provide individuals with the technical skills and information required to perform a specific job or group of jobs. On-the-job training is training conducted in a work environment designed to enable individuals to learn a bona fide skill, and/or qualify for a particular occupation through demonstration and practice. Work experience is a short-term and/or part-time work assignment with a public employer or a private nonprofit employing agency. The main goal of Title I is for eligible participants to acquire self-sufficiency.

Titles II and VI of this act provide for Public Service Employment (PSE) for unemployed and underemployed persons. Public Service Employment is an activity designed to provide transitional jobs for the unemployed and underemployed who are in turn providing needed public services. The Title II main target is people who live in areas of substantial unemployment (6.5 percent or more for three consecutive months) and who have been unemployed for at least 30 days. Title VI provides PSE to the long-term unemployed and AFDC (Aid to Families with Dependent Children) recipients. These programs place special emphasis on the unemployed disabled and Vietnam-era veterans.

Besides the Standard Metropolitan Statistical Area Prime Sponsor (Anchorage) and the balance of state prime sponsor, Alaska has thirteen Alaskan Native Corporations Title III Prime Sponsors. Title III provides summer employment to economically disadvantaged youth between the ages of 14 and 21.

FY 1976 – July 1, 1975, through September 30, 1976

5 Quarters

	PSE	OJT	CT	WE	Services
Total Enrollment	1,837	650	2,193	8,817	1,717
Total Dollars Spent	$5,298,845	$1,214,994	$2,093,631	$3,981,803	$280,391
Entered Employment	4%	37%	32%	4%	84%
Cost Per Participant	$ 2,885	$ 1,869	$ 955	$ 468	$ 163

Total Enrollment 14,584

Total Cost $12,869,684

Balance of State CETA activity for FY '77 to date is shown below:

CETA Activity From Oct. 2, 1976 to June 30, 1977

3 Quarters

	Total Served	Total Terminations	Entered Employment	Federal Outlay
Title I	1,209	586	155	$2,052,136
Special Governor's Grant	296	107	36	259,146
Title II	775	678	144	1,853,351
Title VI*	504	174	47	1,173,581

*The period covered for Title VI is only from January 31, 1977 to June 30, 1977.

WIN (Work Incentive Program)

The WIN program is designed primarily to help employable welfare recipients find jobs and thereby achieve economic independence. All applicants for and recipients of Aid to Families with Dependent Children (AFDC) who are 16 years of age or older are required to register for WIN as a condition of eligibility for AFDC. WIN registrants are required to accept appropriate employment or preparation for employment, when offered, as a condition of continued AFDC eligibility.

To make maximum use of available dollars in FY '77, the program will seek to increase its OJT/PSE participants by 77 percent, increase the placements by 20 percent, and increase the amount of welfare savings by 27 percent.

WIN PROGRAM
ACCOMPLISHMENTS & GOALS
STATE OF ALASKA

	Program Registrants	OJT/PSE* Participants	OJT/PSE* Expenditures	Total Employed Welfare Grant Reduced	Total Off Welfare	Welfare Savings
FY '76 + 3rd Accomplishments	1,761	77	$248,483	339	283	$621,600
FY '77 Goals	1,830	136	261,525	761	338	790,960

*OJT/PSE – On-the-job training/Public Service Employment.

• • •

Veteran Services

The Alaska Employment Service Centers give preferential treatment to Veteran applicants as required by law. Our Employment Centers are responsible for providing veterans with job counseling, employment placement or job training according to their needs. Nearly 9,500 new veteran applications and renewals were serviced between January and June of 1977. Of the 13,800 total applicants placed in this period of time, 2,640 of these were veterans, 1,900 were Vietman era veterans and 160 were handicapped veterans.

Youth Conservation Corps

The Alaska Region of the Forest Service sponsors many Human Resource Programs, one of which is the Youth Conservation Corps (YCC). The YCC gives the youth of today an opportunity to work in and develop an appreciation for our natural resources through environmental awareness training in land use ethics in Alaska, besides accomplishing needed conservation work on public lands. This program provides employment for 15-18 year old males and females from all social, economic, ethnic, and racial backgrounds. Presently, the number of enrollees in Alaska is only 153 since the number of enrollee slots per state is based upon population, thus limiting desired goals for expansion. This year over $1 million in projects will be accomplished in the YCC program.

National Young Adult Conservation Corps

A new program that is being offered by the Forest Service is the National Young Adult Conservation Corps (NYACC). The NYACC was passed into law on May 13, 1977 and will provide youth between the ages of 16-24 with gainful employment, for at least one year in duration. Plans are being made to provide in excess of 1,000 positions per year for the next five years. This program is intended to enhance current Forest Service and community development programs and increase the participants employability.

Vocational Rehabilitation

The mission of the Division of Vocational Rehabilitation is to return persons to work who have reduced employability or who are unemployable as a result of a physical or mental handicap. Vocational Rehabilitation takes a handicapped individual and

provides him with all of the services required to make him employable in an occupational area which is compatible with his disability. Such services may include any or all of the following: diagnosis; physical and/or mental restoration; training; and placement in a specific job compatible with the client's disability.

From July 1, 1976 to June 30, 1977, 462 handicapped individuals were rehabilitated. Of these 27 percent were classified as severely disabled. It is projected that during the similar period from July 1, 1977 to June 30, 1978 roughly 500 will be rehabilitated by the Division of Vocational Rehabilitation.

VOCATIONAL EDUCATION

Vocational Education

Vocational Education is any training intended to prepare an individual for an occupation in a specific trade. Community colleges, unions, private schools and high schools can all be centers for teaching vocational education programs. Table 11 shows actual FY 1976 and projected enrollments for FY 1977–FY 1982 in vocational education programs across the state of Alaska.

It should be noted that many CETA participants are enrolled in vocational education programs; therefore, some duplication of numbers will occur. Special emphasis will be given to the Alaska Skill Center located in Seward, the Anchorage Career Development Center located in Anchorage, and the Hutchison Career Development Center located in Fairbanks.

The Anchorage Career Development Center and the Hutchison Career Development Centers are both non-residential training Centers. Bus transportation is provided for high school students who attend both the Development Center and an area high school. These Centers are designed to enable persons over 16 years of age who are unemployed or underemployed to acquire new skills and obtain entry level positions which would otherwise be closed to them.

The Alaska Skill Center is a residential Manpower Training Center serving Alaskans in need of entry level training, upgrading of skills, and employability development. The Center currently operates four cluster training areas: mechanics, food service, office occupations, and basic building trades. Courses range from 10 to 28 weeks with opportunities to extend in order to complete G.E.D.'s or receive additional skills training. The Center has provided vocational skills training and related adult education for approximately 4,000 students since January, 1970. Fifty percent of those students completed their ultimate training goals, while many others completed lower skill levels. Statistics for the calendar year 1976 and projections for 1977 and 1978 are listed below:

TWEP

The Tribal Work Experience Program (TWEP) sponsored by the Bureau of Indian Affairs (BIA) is new in Alaska. It is a self-esteem program intended to assist those eligible for general assistance. Both the community and applicant benefit from the program. As the applicant gains work experience, the community profits from labor and services provided by the workers. TWEP workers are not used to displace employed persons or fill vacancies in established positions. Projects are suggested by Community leaders and discussed with TWEP coordinators, the organization sponsoring the project furnishes supplies and materials, and TWEP furnishes labor and services. Types of employment involve working in retail outlets, public service centers, city repairs and construction. TWEP is presently serving Juneau, Angoon, Sitka, Haines, Klukwan, and Hoonah.

TABLE 11

PROJECTION OF THE STATE'S ENROLLMENT IN VOCATIONAL PROGRAMS FY 1978 – 1982

Occupational Programs Program	(Actual)* FY 1976	FY 1977	FY 1978	FY 1978	FY 1980	FY 1981	FY 1982
Agriculture	78	174	188	219	250	280	313
Distribution	2,835	2,835	2,977	3,471	3,964	4,440	4,968
Health	483	483	507	591	675	756	846
Occupational Home Economics	1,049	1,049	1,101	1,284	1,466	1,642	1,837
Office	14,012	14,012	14,713	17,155	19,591	21,942	24,553
Technical	555	555	583	679	775	868	971
Trades & Industry	10,624	10,624	11,116	12,961	14,801	16,577	18,550
Consumer & Home-Making	5,181	5,181					
TOTAL	34,813						
Level of Instruction:							
Secondary	25,474	25,474	26,748	31,188	35,617	39,891	44,638
Postsecondary	2,112	2,112	2,218	2,586	2,953	3,307	3,701
Adult							
Preparatory	816	816	857	999	1,141	1,278	1,430
Apprenticeship	1,332	1,332	1,399	1,469	1,678	1,879	2,103
Supplemental	5,079	5,079					
TOTAL	34,813						
Enrollment of Special Programs (All levels)							
Disadvantaged	65	65	68	79	90	101	113
Cooperative	1,267	1,267	1,330	1,551	1,771	1,983	2,219
Work Study	66	66	69	80	91	102	114
Depressed Areas	1,803	1,803	1,893	2,207	2,520	2,822	3,158
Enrollments of Persons with Special Needs (all levels, all programs)							
Disadvantaged	6,924	6,924	7,270	8,477	9,681	10,843	12,133
Handicapped	2,765	2,765	1,903	3,385	3,866	4,330	4,845

*From Alaska DOE report for FY 1976 to D/HEW. Projections for FY 1978–FY 1982 are based on estimated annual percentage increases in Federal and State/Local funding. FY 1977 is estimated the same as FY 1976, because funding levels were about the same.

ADDENDUM G

a. Alaska Native Hire and General Work Force Comparisons for the Trans-Alaska Oil Line Construction Project 1974-75

b. Some 1975 Estimates of Region-Internal Native Work Force and Manpower Utilization

Excerpt: Alaska Native Population and Manpower: 1975
pp. 120 and 121 and pp. 122-124

ALASKA NATIVE/GENERAL WORK FORCE EMPLOYMENT
ON TRANSALASKA PIPELINE CONSTRUCTION PROJECT MONTHLY 1974-75

AS OF	TOTAL INDIVIDUALS EMPLOYED (100%) #AN	TOTAL INDIVIDUAL NATIVES EMPLOYED #AN	%	CUMULATIVE INDIVIDUAL NATIVES EMPLOYED #AN
1974				
JULY	5620	393	7.0	725
AUG	6335	430	6.8	891
SEP	7919	625	7.9	1168
OCT	8393	604	7.2	1446
NOV	8322	582	7.0	1564
DEC	8251	561	6.8	1734
1975				
JAN	10714	771	7.2	1911
FEB	13101	943	7.2	2125
MAR	15891	1191	7.5	2384
APR	17266	1277	7.4	2632
MAY	17752	1313	7.4	2966
JUN	19221	1403	7.3	3277
JUL[a]	19987	1538	7.7	3677
AUG[b]	26104	2218	8.5	4126
SEP	27115	2657	9.8	4397
OCT	28072	2498	8.9	4509
NOV	27504	2447	8.9	4619

a) July 1974 through July 1975 reflect Project work force and Alaska Natives reported by individuals actually on the job as of date of peak employment for any given month.

b) Reflects a change in APSC reporting procedure--shown is the reported total number of individuals hired during the months (by month) beginning Aug. 1975. The figures for the first 3 cols. above include persons who completed a job term (or terminated) and were hired again by the same or another employer (sub-contractor) for a consecutive job term period falling within the same month. Thus, an individual employee can be counted twice as a separate hire provided employment terminated on one date and commenced again a short time later, both dates falling within a given month.

Compiled by: Human Environmental Resource Services, Inc.

Source: Alyeska Pipeline Service Company Native Utilization Report (Match List) as of Dec. 1975, and other appropriate in-house reports.

INDIVIDUAL ALASKA NATIVES EMPLOYED AND/OR TRAINED
THROUGH THE TRANSALASKA PIPELINE CONSTRUCTION PROJECT 1974-1975

	CUMULATIVE to 12/31/74		CUMULATIVE to 6/30/75		CUMULATIVE to 11/30/75	
	#AN	%	#AN	%	#AN	%
INDIVIDUAL ALASKA NATIVES IDENTIFIED AND EMPLOYED	1734	100.0	3277	100.0	4619	100.0
INDIVIDUAL ALASKA NATIVES ACTUALLY EMPLOYED AS OF MONTH SPECIFIED	561	32.4	1403	42.8	2447[a]	53.0[a]
INDIVIDUAL ALASKA NATIVES TRAINED						
General Orientation to Pipeline Construction Employment[b]	1734	100.0	3277	100.0	4619	100.0
Special Orientation Prior to Training or Employment[c]					152	2.7
Pre-job Union Crafts Skill Training[d]					1126	24.4
On-the-Job Training[e]					1282	27.8

a) Includes some individuals who completed a job term and began another, thereby counted as 2 hires--this figure only reflects this change in reporting procedures by APSC which began August 1975.
b) General preparation for employment or training--individuals are on payroll during this period.
c) Extended training in preparation for assignment or training designed for individuals who desire employment on the project but lack basic skills or understandings required.
d) Institutional pre-job training in the Crafts, includes but is not limited to: Teamsters, Welders Helpers, Operating Engineers, Carpenters, Painters, Plumbers, Asbestos Workers, Iron Workers, Hotel & Restaurant Workers, etc.
e) On-the-job training in the crafts, primarily, but not limited to: Teamsters, Operating Engineers, Welders Helpers, Laborers.

Compiled by: Human Environmental Resource Services, Inc.

Source: Alyeska Pipeline Service Company in-house reports, including Native Utilization Report, Dec. 1975.

REPRESENTATIVE REGIONAL CORPORATION AND ONE SMALL VILLAGE - NORTHWEST REGION
MANPOWER NEEDS TO CONDUCT CORPORATE AND VILLAGE AFFAIRS
ESTIMATE SEPTEMBER 1975

BERING STRAITS NATIVE ASSOCIATION

Resident Members:	9800-10000	
Native Employment in Native Association Corporate Affairs:		
Residing in Nome	75	
Residing in 16 Villages	50	
Total Currently Employed	125	minimum
Positions to be filled before June 1976	10-15	
Predicted Manpower needs by 1980	200-210	minimum
Projected 1980 Corporate and Village Affairs Employment	300-350	minimum

VILLAGE OF GOLOVIN

Resident Population:	1'5-150	
Natives Employed:		
Health Aide	2	
Teacher Aide	2	
Mental Health Aide	1	
Corporation Consultant	1	
School Maintenance	1	
Storekeeper	2	
Total Employed	9	minimum

NOTE: Other small villages in the Region commonly employ the above plus:

Power Plant Operator	1-2	
Police	1-2	
Magistrate	1/2-1	
Postmaster	1/2-1	
Total	3	minimum

Compiled by: Human Environmental Resource Services, Inc.

Source: Private interview between Dr. L.L. Bland and an Executive Committee Member of the Bering Straits Native Association (Name withheld by request) September 1975.

ADDENDUM H

COMPARISON BETWEEN ALASKA DEPARTMENT OF LABOR, ALASKA DEPARTMENT OF COMMERCE AND ECONOMIC DEVELOPMENT, AND INSTITUTE OF SOCIAL AND ECONOMIC RESEARCH

PERTINENT POPULATION SOURCE DATA

A COMPARISON OF STATE OF ALASKA OFFICIAL POPULATION ESTIMATES 1976-80

Comment by
L. L. Bland, Ph. D.

State agencies currently generating Alaska population statistics have developed or adopted statistical models believed to depict a reasonably acceptable reality under given socio-economic conditions. The appropriate 1970 Census data is frequently the base line (primary) data source with various numerical factors from current agency reports incorporated as variables in order to derive on-going annual estimates. Both the Alaska Department of Commerce and Economic Development (through the Alaska Economic and Information Reporting System--AIERS) and the Alaska Department of Labor have developed models that allow for the permanent 1974-1977 pipeline construction impact on population increase, but do not incorporate factors for acellerated petroleum extraction development/transportation associated with construction of a trans-Alaska gas line before 1980. As far as is known, both these agencies apply the same estimates for military personnel stationed in Alaska (1976-22,766/1977-20,948). These estimates are applied in the tables below. Since the military does not generally publicly forecast numerical estimates of personnel to be stationed in installations for a given state except in broad terms, the estimate provided by AIERS (in-house report May 1978) for 1977 is applied through 1980. The major reduction in military forces to be stationed in Alaska was announced for the general period of 1970 through 1975. There is little reason to believe that the number of military personnel assigned to Alaska will change significantly

between 1977 and 1980 other than in case of national emergency. The Institue of Social and Economic Research of the University of Alaska (ISER) has developed a model for application in the Man-in-the-Arctic Program (MAP) extending population estimates to 1990. The ISER model maintains the military component of Alaska population at 27,500 through 1980. Additionally, the ISER model applies estimates for the Alaska Native population that appear to significantly underestimate the Native population when the ISER figures are compared to those compiled by federal agencies serving the Alaska Native population as a primary mission (Bureau of Indian Affairs and Alaska Area Native Health Service). Although the end result when comparing total and civilian population estimates from the three State sources generally differs under ± 5%, these figures appear here so they may be compared to the final results stated in ALASKA NATIVE POPULATION AND MANPOWER: PERSPECTIVES ON NATIVE LABOR FORCE UTILIZATION-1978. The estimates for Native population as derived and applied through the ISER model are not used in the following tables since preponderant empirical evidence conclusively demonstrates these figures to be unacceptable as a realistic estimate. Standards governing research require that sources of data with equal stature and acceptability be recognized. The purpose of the tables below is to present other valid sources of Alaska population data recognized by Government, and to present these data in a fashion to demonstrate empirically the rationale for maintaining a single source for Alaska total and civilian population estimates in the 1978 research report appearing under the title cited above. (The Native population estimates derived through the ISER model not applied here are 1976-58,400, 1978-60,700, and 1980-63,200.)

TABLE A-I

TOTAL ALASKA POPULATION

	ISER[1]	AIERS[2]	ADOL[3]	MEAN	LARGEST PERCENT DIFFERENCE
1976	394,350	402,500	413,289	403,380	2.4
1978	413,826	409,400	410,978	411,401	.6
1980	464,920	434,500	438,836	446,085	4.0

TABLE A-II

ALASKA CIVILIAN POPULATION

1976	375,400	379,734	390,523	381,886	2.2
1978	397,200	386,052	390,030	391,094	1.5
1980	460,200	412,552	417,888	430,213	6.5

Compiled by: Human Environmental Resource Services, Inc.

Source:
1. Alaska's Growth to 1990, REVIEW OF BUSINESS AND ECONOMIC CONDITIONS, ISER, Vol. XIII, No. 1, Jan. 1976.
2. Alaska Economic Information & Reporting System Quarterly Report April 1978 and in-house document May 1978, Alaska Department of Commerce and Economic Development.
3. Alaska Department of Labor, Research and Analysis, in-house document April 18, 1977.

TABLE B-I

STATE POPULATION/ALASKA NATIVE POPULATION
COMBINED DATA SOURCES/MEAN 1976-1980

	MEAN STATE TOTAL (100%)	NATIVE MEAN	PERCENT NATIVE POPULATION
1976	413,380	62,623	15.5
1978	411,401	68,931	16.8
1980	446,085	74,873	16.8

TABLE B-II

CIVILIAN POPULATION/ALASKA NATIVE POPULATION
COMBINED DATA SOURCES/MEAN 1976-1980

1976	381,886	62,623	16.4
1978	391,094	68,931	17.6
1980	430,213	74,873	17.4

Compiled by: Human Environmental Resource Services, Inc.

Source: See Table A.

Consideration of the Anchorage population for purposes of drawing comparisons between Alaska Native and general population distribution in Alaska is pertinent only insofar as discussion relates to labor market areas and administrative reporting procedures of government agencies. Data are not compatible nor generally considered reliable for estimates for the portion of adult Alaska Native population residing in Anchorage as provided by BIA Area-wide estimates when seeking to compare data provided for the Anchorage standard metropolitan area or the Greater Anchorage Area Borough. Some insight is gained, however, for the proportional distribution of population and utilization of the work force through appropriate data that is available for a number of decades. The Alaska population growth patten is most dramatically demonstrated by the significant growth of that municipal area when it is compared proportionately with the recorded state population. According to an ADOL in-house document dated April 18, 1977, Anchorage reported only 1,856 residents in 1920. With the coming of World War II, Anchorage became the principal and preponderant center of Alaska population. From 1940 to 1950, the Anchorage population jumped from 4,229 to 32,060, a substantial portion being military, dependents, and government civil service personnel. A significant portion of the Anchorage adult population has continued to fall under this classification. From 1965 to 1978, the Anchorage population rose from 103,600 to about 196,200, being approximately 48% of the total state population.

It is noteworthy that during the peak of the trans-Alaska oil line construction project, a general estimate for employed persons in Anchorage was 40 to 45% of the resident population.

ADOL now forecasts that from 1978 through 1980, the employed proportion of the Anchorage population will be about 38% of the civilian residents (ADOL in-house document, April 18, 1977).

TABLE C

ANCHORAGE POPULATION/PERCENT OF STATE POPULATION
ADOL ESTIMATES 1976-1978

	ANCHORAGE POPULATION	PERCENT STATE TOTAL
1976	185,179	44.8
1978	196,200	47.7
1980	224,600	51.2

Compiled by: Human Environmental Resource Services, Inc.

Source: Alaska Department of Labor, Research and Analysis in-house document, April 18, 1977.

TABLE D

ANCORAGE POPULATION MEAN ESTIMATES 1976-1978

	ADOL	ISER	MEAN	LARGEST % DIFFERENCE
1976	183,151	188,362	185,756	.3
1978	196,200	203,290	199,645	1.7
1980	224,600	228,053	226,326	.7

Compiled by: Human Environmental Resource Services, Inc.

Source: Alaska Department of Labor, Reserach and Analysis in-house document, April 18, 1977.

The results of treatment of data and the conclusions drawn as stated in ALASKA POPULATION AND MANPOWER: PERSPECTIVES ON NATIVE LABOR FORCE UTILIZATION-1978 are supported by a substantive rationale that conclusive empirical evidence mandates the use of Native population data as generated and reported by the BIA and AANHS, with the use of means for the data from these two sources as appropriate and/or indicated. Substantive rationale is also presented regarding the appropriateness of using a single officially recognized source of State population data that meets common criteria

for statistical validity and reliability while also being self-evidently realistic and reasonable. The difference between using the State generated data mean as shown on the preceding tables, and AIERS data singularly in a comparison with Native population data from the combined BIA and AANHS sources is shown below.

TABLE E

COMPARISON OF DATA SOURCES
ALASKA/ALASKA NATIVE POPULATION

	BIA / AANHS ALASKA NATIVE	STATE MEAN TOTAL CIVILIAN		AIERS TOTAL CIVILIAN		PERCENT NATIVE MEAN		AIERS	
1976	62,623	403,380	381,886	402,500	379,734	15.5	16.4	15.6	16.5
1978	68,931	411,401	391,094	409,400	386,052	16.8	17.6	16.8	17.8
1980	74,873	446,085	430,213	434,500	412,552	16.8	17.4	17.2	18.1

Note: State mean includes ISER factor for 25,700 military personnel after 1977. Figures reported to the State by the military estimate approximately 21,000 military personnel after 1977.

Compiled by: Human Environmental Resource Services, Inc.

Source: See Tables A through D.

ADDENDUM 1

Author Vitae

VITAE

LAUREL LE MIEUX BLAND, Ph.D.

Specialist in Human Resource Development

Birth:	Spokane, WA, USA	S.S.:	534-20-2394
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	(907) 277-8280 (Alaska)	WA.B&O:	C600228573

EDUCATION

Ph.D. Foundations of Education: Anthropology, University of New Mexico, 1974
(Dissertation: Visual Perception and Recall of School-Age Navaho, Hopi, Jicarilla Apache, and Caucasian Children of the Southwest)
Postgraduate Vocational Counseling and Guidance Qualification, 1969
M.A. Adult Education: Human Relations, University of Alaska, 1969 (Thesis: Adult Basic Education Needs Assessment - Alaska 1968)
Member: Cross-Cultural Education Seminar, Hebrew Univeristy, Jerusalem, Israel, 1970
Legislative Appointee: Conference on the Future of Alaska, Brookings Institute, 1970
B.Ed. cum laude, Secondary Education (English: Behavioral Sciences), University of Alaska, 1968
A.A. Anchorage Community College, Alaska, 1966
Dipolma, Rogers High School, Spokane, Washington, 1944

HONORS

Professor, Lifetime Appointment, Sheldon Jackson College, Adjunct Faculty, Sitka, Alaska, 1975
Formal Induction, Tlingit Indian Tribe (H. Bremner Potlatch), 1975
Traditional Adoption, Kaweramiut Eskimo Band, 1970
Graduate Fellowship, Alaska Department of Education, 1968-1969

REPRESENTATIVE PROFESSIONAL ACTIVITIES

President and Director: Human Environmental Resource Services, Inc., 1968 -
Director: Special Historical and Cultural Inventory of Imuruk Basin and Adjacent Areas (Alaska), 1969 -
Manager: Alaska Legal Services Outreach Office, Nome, Alaska, 1968-69

FACULTY APPOINTMENTS

Sheldon Jackson College, Director: Cross-Cultural Teacher Training Program, 1974-75
University of Alaska-Fairbanks, Assistant Professor: Education 1974
Alaska Methodist University/University of Alaska Consortium-Anchorage, Instructor: History Department, 1970-73
University of Alaska, Senior Research Assistant: Institution of Social, Economic, and Government Research, 1969

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CONSULTING CONTRACT SERVICES
(by appointment of request)

U.S. Senate Select Committee on Indian Affairs, 1977
Washington State University, Third-party Evaluator for U.S. Office of Education Project No. 498AH6004, 1977
American Indian Policy Review Commission of the U.S. Congress, 1976
National Indian Education Association/Western Interstate Commission for Higher Education/PRIME, 1977
State of Alaska Department of Health and Social Services, 1975
State of Alaska Department of Education 1970
Alaska Federation of Natives/Bureau of Indian Affairs, 1971
Alaska Department of Parks and Recreation, 1972
Arctic Native Brotherhood, 1970
Alaska Human Rights Commission, Office of the Governor, 1967
Private clients, primarily legal firms, 1975- (names upon request)

PUBLIC SERVICE
(representative/invitation)

Conference Participant/Speaker
National Indian Education Association 1973-1977
Pacific Northwest Personnel Management Association - Columbia Basin Chapter, 1977
Alaska Historical Society, 1972-1976
National Committee on Indian Heritage Preservation, 1975
Southeast Alaska Cross-Cultural Education Consortium, 1974-1975
Rocky Mountain Educational Research Associates, 1974
Southwest Association for Applied Linguistics, 1974
National Conference on Bilingual Education, 1973, 1974
Technical Assistance (ad hoc service)
Task Force 5, American Indian Policy Review Commission
Special Hearing in Alaska, U.S. Department of the Interior, Office of Equal Employment Opportunity (Expert Witness in Anchorage) 1970
Alaska Council on the Arts, 1968-74
Alaska Historical Society/Commission 1967-77
Greater Anchorage Area Borough, 1972
North Star Borough, 1970
Alaska Medical Association/Alaska Mental Health Association, 1970-72
Alaska Native Regional Associations and Villages, 1968-78

TRAVEL

Contiguous United States, Alaska (except Aleutian Islands), Canada, Mexico, Great Britain (except Ireland), Central Europe, Israel

REPRESENTATIVE PUBLICATIONS
publisher upon request

Alaska Native Population and Manpower - Perspectives on Native Labor Force Utilization: 1978
Careless Boy - Eskimo Stories (pre-publication review)
Native People of Alaska: A Historical Review (publisher review)
Alaska Native Population and Manpower: 1975
"Status of Alaska Native Education: 1976"
American Native Oral Tradition: Legal Safeguards and Public Domain
Manpower Needs Assessment for Construction of the Trans-Alaska Pipeline with Recommendations for Training: 1971
"Joblessness in the Arctic: A Manpower Paradox"
Basic Bibliography in Alaska Adult Education
First Biennial Report, Alaska Council on the Arts
Alaska Legal Services Field Operation Manual: 1968
Cues for Conference Management
Northern Eskimos of Alaska
People of Kauwerak (with William Oquilluk)